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TRANSACTIONS

OF THE

MEDICAL SOCIETY

OF THE

STATE OF PENNSYLVANIA,

AT ITS

THIRTIETH ANNUAL SESSION,

HELD AT ALTOONA, MAY, 1880.

BOSTON MEDICAL LIBRARY ASSOCIATION.

VOLUME XIII.—PART I.

PUBLISHED BY THE SOCIETY.

PHILADELPHIA:
COLLINS, PRINTER, 705 JAYNE STREET.
1880.

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By a Resolution adopted at the Session of 1853, the Committee of Publication was instructed to prefix to each volume of the *Transactions* a note, or statement, to the effect that the Medical Society of the State of Pennsylvania does not indorse or sanction, by its authority, the facts or opinions contained in any address or report made to it, or which is directed to be inserted in its published Transactions.

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MINUTES OF THE PROCEEDINGS

OF THE

Medical Society of the State of Pennsylvania,

AT ITS THIRTY-FIRST ANNUAL SESSION,

HELD IN

ALTOONA, MAY 1880.

THE Medical Society of the State of Pennsylvania met at Altoona, Wednesday, May 19th, in the Opera House, at 11 A. M.

The President, Dr. ANDREW NEBINGER, of Philadelphia Co., called the meeting to order, and prayer was offered by Rev. S. W. Duffield, of the 2d Presbyterian Church of Altoona. Vice-Presidents Dr. WM. B. ULRICH, of Delaware Co., Dr. JACOB L. ZEIGLER, of Lancaster Co., Dr. JOSEPH A. MURPHY, of Luzerne Co.; the Permanent Secretary, Dr. WM. B. ATKINSON, of Philadelphia Co.; the Assistant Secretary, Dr. C. H. CLOSSON, of Blair Co.; the Treasurer, Dr. BENJ. LEE, of Philadelphia Co., and the Corresponding Secretary, Dr. O. H. ALLIS, of Philadelphia Co., were present.

The Permanent Secretary read the list of delegates, etc., as registered, and on motion of Dr. JOHN L. ATLEE, of Lancaster Co., the representatives from New Jersey were invited to seats on the platform. These were Drs. E. P. TOWNSEND, of Beverly, and W. ELWELL, of Burlington.

Adams County.

J. M. RADEBAUGH,	Gettysburg.
O. W. THOMAS,	Arendtsville.

Allegheny County.

JOHN M. BATTEN,	Pittsburg.
A. V. CHESSROWN,	"
J. H. CHRISTIE,	Allegheny City.
WM. H. DALY,	Pittsburg.

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J. C. Dunn,	Pittsburg.
T. R. Evans,	"
Thos. J. Gallaher,	"
Robert H. Gilliford,	Allegheny City.
D. C. Huffman,	McKeesport.
W. S. Huselton,	Allegheny City.
Jas. Kerr,	Pittsburg.
Wm. F. Knox,	McKeesport.
J. A. Reed,	Dixmont.

Armstrong County.

T. H. Allison,	Kittanning.
John K. Maxwell,	Worthington.

Bedford County.

S. G. Miller,	Everett.

Berks County.

Edwin B. Bertolet,	Oley.
L. DeB. Kuhn,	Reading.

Blair County.

G. F. Arny,	Altoona.
R. W. Christy,	Sabbath Rest.
Rowan Clarke,	Bellwood.
C. H. Closson,	Altoona.
John Fay,	"
David S. Hays,	Hollidaysburg.
Harry Jacob,	Altoona.
E. S. Miller,	"
W. C. Roller,	Hollidaysburg.
S. M. Ross,	Altoona.
John C. Thompson,	Bellwood.
S. Thompson,	Spruce Creek (Huntingdon Co.).

Butler County.

John E. Byers,	Butler.
J. L. Christy,	Conoquenessing.

Centre County.

C. H. Cambridge,	Bellefonte.
E. S. Dorworth,	"
S. Fugate,	Post.
D. H. Mingle,	Millheim.

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Chester County.

R. B. EWING,	West Grove.
J. WILLIS HOUSTON,	Collamer.

Clarion County.

WM. FORSTER,	St. Petersburg.
J. F. ROSS,	Clarion.
WM. P. SHOEMAKER,	Edenburg.

Clearfield County.

F. B. READ,	Osceola Mills.
W. J. SMATHERS,	Du Bois.
FRED. TODD,	Hontzdale.

Clinton County.

J. H. FISHBURNE,	Lock Haven.

Columbia County.

B. F. GARDNER,	Bloomsburg.
C. LENKER,	Buckhorn.

Crawford County.

WM. VARIAN,	Titusville.
J. DANA LITTLEFIELD,	"

Cumberland County.

W. W. DALE,	Carlisle.
D. M. HAYS,	"
WM. F. REILY,	"
R. L. SIBBET,	"
S. P. ZEIGLER,	"

Dauphin County.

E. H. COOVER,	Harrisburg.
JOHN CURWEN,	"
H. L. ORTH,	"
C. A. RAHTER,	"
JOHN K. SMITH,	"

Delaware County.

EDWIN FUSSELL,	Media.
ISAAC N. KERLIN,	"
WM. B. ULRICH,	Chester.

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Erie County.

J. L. Stewart,	Erie.

Fayette County.

E. Phillips,	New Haven.
J. T. Shepler,	Dunbar.

Franklin County.

J. C. Gilland,	Greencastle.
A. H. Strickler,	Waynesboro.

Huntingdon County

Isaac Guss,	Cassville.

Indiana County.

W. T. Larimer,	West Lebanon.

Jefferson County.

Andrew P. Cox,	Big Run.
J. W. Foust,	Reynoldsville.
G. W. Hilliard,	Richardsville.
J. C. King,	Reynoldsville.

Lackawanna County.

L. H. Gibbs,	Hyde Park, Scranton.

Lancaster County.

H. M. Black,	Strasburg.
J. Aug. Ehler,	Lancaster.
D. J. McCaa,	Ephrata.
A. M. Miller,	Bird-in-Hand.
Geo. T. Weisman,	Bainbridge.

Lycoming County.

Thos. Lyon,	Williamsport.

Mercer County.

H. M. Bishop,	Sharon.
J. B. Livingstone,	West Middlesex.
L. G. Meyer,	Mercer.

Mifflin County.

Jas. M. Brown,	McVeytown.
John B. Floyd,	Belleville.
Jas. T. Mahon,	Newton Hamilton.
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Montour County.

JAMES OGELBY,	Danville.
ISAAC PURSELL,	"
S. S. SCHULTZ,	"

Northampton County.

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JOHN BUZZAND,	Bangor.
TRAILL GREEN,	Easton.
A. K. SEEM,	Martin's Creek.

Perry County.

G. W. EPPLEY,	Marysville.
A. J. WERNER,	Duncannon.

Philadelphia County.

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W. PENN BUCK,	"
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THOS. H. FENTON,	"
MORRIS STROUD FRENCH,	"
R. M. GIRVIN,	"
WM. GOODELL,	"
JOSEPH HEARN,	"
ADDINELL HEWSON,	"
RICHARD J. LEVIS,	"
J. R. LEVAN,	"
WM. H. PANCOAST,	"
SAMUEL D. RISLEY,	"
FRANK WOODBURY,	"

Schuylkill County.

J. H. B. AMICK,	Schuylkill Haven.
S. H. BRADY,	Lost Creek.
GEO. W. BROWN,	Port Carbon.
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John B. Donaldson,	Canonsburg.
Geo. E. Lytle,	Monongahela City.
Joseph McElroy,	Hickory.
C. B. Wood,	Monongahela City.

Westmoreland County.

J. P. Klingensmith,	Derry Station.
L. Offutt,	Penn Station.

York County.

H. Alleman,	Hanover.
J. H. Bittinger,	"
Geo. P. Yost,	Logansville.

Ex-officio Delegates.

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O. H. Allis, *Corresponding Secretary*, Philadelphia.
Benjamin Lee, *Treasurer*, Philadelphia.

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Wm. D. Bailey,	Dillsburg,	York "
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D. M. Barr,	Philadelphia,	" "
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Homer C. Bloom,	Martinsburg,	Blair "
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S. T. Davis,	Lancaster,	Lancaster "
J. Y. Dale,	Lemont,	Centre "
Wm. M. Findley,	Altoona,	Blair "
J. M. Gemmill,	Tyrone,	" "
Geo. F. Harris,	Bellefonte,	Centre "
A. Harshberger,	Milroy,	Mifflin "
Aug. Hibler,	Bellefonte,	Centre "
J. W. Hughes,	Blairsville,	Indiana "
Chas. T. Hunter,	Philadelphia,	Philada. "
P. D. Keyser,	"	" "
B. Leaman,	Leaman Place,	Lancaster "
T. M. Livingstone,	Mountville,	" "
D. P. Miller,	Huntingdon,	Hunt'gdon "
P. T. Musser,	Aaronsburg,	Centre "
W. A. McChesney,	Indiana,	Indiana "
R. McConaughy,	Mt. Pleasant,	Westm'lnd "
H. McGowan,	Harrisburg,	Dauphin "
J. McMichael.	Barnhart's Mill,	Butler "
James W. Neely,	Pittsburg,	Allegheny "
John H. Packard,	Philadelphia,	Philada. "
Wm. H. Parish,	"	" "
Wm. Pepper,	"	" "
John B. Roberts,	"	" "
John D. Ross,	Williamsburg,	Blair "
S. L. Rutledge,	Blairsville,	Indiana "
A. H. Sheaffer,	Lewistown,	Mifflin "
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G. W. Smith,	Hollidaysburg,	Blair "
J. M. Smith,	Tyrone,	" "
J. R. Smith,	Pine Grove,	Centre "
R. V. Spackman,	Luthersburg,	Clearfield "
A. S. Stayer,	Roaring Spring,	Blair "
J. M. Stevenson,	Pittsburg,	Allegheny "
Jos. Swartz,	Duncannon,	Perry "
Wm. T. Taylor,	Philadelphia,	Philada. "
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F. H. Van Valzah,	Spring Mills,	Centre "

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H. B. VAN VALZAH,	Clearfield,	Clearfield County.
H. S. WISHART,	Harrisonville,	Fulton "
J. F. WOODS,	Boalsburgh,	Centre "

Dr. ROWAN CLARKE, of Blair Co., welcomed the Society to Blair County as follows:—

MR. PRESIDENT AND BRETHREN OF THE STATE MEDICAL SOCIETY: The pleasant duty of saying *welcome* has been assigned to me by the Committee of Arrangements.

We extend to you a hearty greeting. We hold the State Medical Society in the highest esteem. We trust that great good will result from this meeting. We have looked forward to it with pleasure—not only that we may greet old friends, but that new ties may be formed.

We hope to learn much—we believe that it will teach us to love our profession more—we expect to be better fitted for the important work God has given us to perform.

The meeting of such a body of men from our own and other States, representing the advance in all branches of our profession—must produce good results.

We need you to teach *us* how we may make our knowledge useful, and we need you to stimulate us to new and better efforts in science.

Our county occupies a central position in the State; it has rich and productive valleys to feed our people, and high mountains and hills filled with rich minerals, that centuries will not exhaust.

We have the principal shops of the best constructed and managed railroad of the country. These shops make anything that is used on a railroad, from the smallest bolt to the finest Pullman coach, or the most powerful locomotive. Their fires never go out. As the Jews of old turned their eyes each morning and evening to the Temple, to see that the daily sacrifice was offered, and were happy and contented when they saw the smoke arise, so do our people rejoice each day, when they see the cloud of smoke arise from the workshops, satisfied then that our county is safe and prosperous.

The main line of the Penna. Railroad passes through this county. Branches are sent forth from Altoona to Hollidaysburg, there again dividing to different portions of the county, to collect the rich ores and other minerals which nature has so abundantly stored away in our hills and valleys. From Tyrone, in the northern end of the county, the Tyrone and Clearfield Road also sends numerous branches to bring forth the products of the immense coal and lumber fields of Clearfield. Also the Tyrone and Lock Haven to tap the Susquehanna region, and soon the Tyrone and Lewisburg will be running through one of the finest iron ore and limestone regions of the State, from Bell's Mills. The Bell's Gap, a narrow gauge road, climbs around the spurs of the Allegheny and spans deep ravines, over a route unsurpassed in beauty and grandeur, not only giving pleasure to the lover of nature, but also collecting the products of Cambria and Clearfield. Whilst we do not dispute the claim that Boston is the hub of the Universe, we do claim that

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Blair County is the hub of Central Penna. For here we have the heart of the great road that largely controls the traffic of the whole country, and we drain the resources of the surrounding counties into our own. Our county is young, a little more than a generation old, and this city is only a stripling; many who are here present were in the full vigor of manhood when the site of this town was covered with forest, with here and there a swampy meadow. Although its growth has been rapid, greater things are hoped for in the future.

As we hope that this meeting will be an important one, I will not detain you any longer, but will again say, we welcome you.

He presented the following order of business, which was adopted:—

Wednesday—Morning Session.—The Society will come to order at 11 o'clock A. M., Dr. ANDREW NEBINGER in the chair. The session will be opened with prayer, by Rev. SAMUEL W. DUFFIELD. Address of Welcome, by Dr. ROWAN CLARKE, of Bellwood, Pa. Reading of Report of Committee of Arrangements acting as a Committee on Credentials. Introduction of Delegates from other Societies, and of Visitors not Delegates. Report of Delegates from other Societies. Report of Corresponding Secretary. Report of Treasurer. Adjournment.

Afternoon Session—2 o'clock P. M.—Miscellaneous Business. Address in Surgery, by Dr. JOHN H. PACKARD, of Philadelphia. The following papers will be read in their regular order, and a short time allowed for discussion after each paper: "New Remedies in the Local Treatment of Skin Diseases," by Dr. JOHN V. SHOEMAKER, of Philadelphia. "Anæsthesia in Labor, with Exhibition of New Inhaler," by Dr. D. M. BARR, of Philadelphia. "The Bromide of Ethyl as an Anæsthetic in Practical Surgery," by Dr. JOHN B. ROBERTS, of Philadelphia. Adjournment.

Evening Session—8 o'clock P. M.—Annual Address, by the President of the Society, Dr. ANDREW NEBINGER, of Philadelphia. Adjournment.

Thursday—Morning Session—9 o'clock A. M.—Prayer, by Rev. A. SHELDON WOODLE. Announcement of Nominating Committee. Reports of County Medical Societies. Reports of Committees. Report on Status of Dr. SEILER, by Dr. TRAILL GREEN, Chairman. Report on State Board of Health, by Dr. WM. B. ATKINSON, Chairman. Report on Medical Legislation, by Dr. R. L. SIBBET, Chairman. Report of Committee on Epilepsy and Insanity, by Dr. JOHN CURWEN, Chairman. Addresses. In Obstetrics, by Dr. JOHN T. CARPENTER, of Schuylkill County, Pa. In Mental Disorders, by Dr. ISAAC N. KERLIN, of Media, Pa. Reading of Papers: "Clinical Observations on the Radical Treatment of

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Fibroid Tumors," by Dr. WILLIAM GOODELL, of Philadelphia. "Hyperdistension of the Air Cells as a Therapeutic Measure," by Dr. J. SOLIS COHEN, of Philadelphia. "Practical Remarks on the Treatment of Asthma, by Dr. WM. PEPPER, of Philadelphia. Adjournment.

Afternoon Session—2 o'clock P.M.—Report of Nominating Committee. Address in Medicine, by Dr. THOMAS SHAW, of Allegheny County. Excursion to Bell's Gap at 3 o'clock P. M. Social Supper at the Logan House at 8 o'clock P. M. Reception by the Blair County Medical Society, from 8.30 to 12 o'clock P. M., at the Logan House.

Friday—Morning Session—9 o'clock A. M.—The Construction and Advantage of a New Mechanical Appliance for the Treatment of Diseases of the Spine, by Dr. E. H. COOVER, of Harrisburg. Why Deformity frequently follows Fracture of the Lower End of the Humerus. Why Fractures just Above or Below the Knee are so Dangerous, by Dr. O. H. ALLIS, of Philadelphia. Address on Hygiene, by Dr. BENJAMIN LEE, of Philadelphia. Conservative Surgery, by Dr. S. M. ROSS, of Altoona. Miscellaneous Business. Adjournment.

Afternoon Session—2 o'clock P. M.—Visit to the Pennsylvania R. R. Shops by invitation of Supt. of Motive Power of R. R.

Dr. W. W. DALE, of Cumberland Co., offered a motion that any physicians present, not members, be invited to seats.

Dr. WEISMAN moved to amend by adding, "provided they are in good standing in their county society, or graduates of a respectable regular medical school." This was accepted.

The motion was negatived.

Dr. ALEXANDER CRAIG, of Lancaster Co., moved to strike all off after the word "graduates." Adopted, and the original motion was then adopted.

A motion was then made, by Dr. S. M. ROSS, that Drs. C. C. MILLER and J. C. LUKE, of Cambria County, where there is no county medical society, be invited to seats.

An amendment, "that all physicians, graduates of regular colleges in good standing, and recommended by any member of this Society, be invited to seats at this session," was negatived, and the original motion was adopted.

Dr. E. P. TOWNSEND, of New Jersey, made some remarks on taking his seat with the officers, and on motion they were entered on the minutes.

Dr. O. H. ALLIS, Corresponding Secretary, presented the follow-

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ing report, which was received, and on motion was ordered to be spread upon the minutes.

GENTLEMEN: The only matter that I have to report is the following letter, which fully explains itself:—

CATAWISSA, May 12, 1880.

Dr. O. H. ALLIS, *Corresponding Secretary of State Society.*

DEAR SIR: As the State Society took action with reference to our Society in connection with the case of Dr. A. L. Turner, I suppose it proper that I communicate, through you, the action of our Society on that case.

Copied from minutes of July 12, 1879:—

Society met in special session, to take action upon the charges preferred against Dr. A. L. Turner; Dr. Vastine, President, in the chair.

On motion, it was resolved that all not members of Society be requested to retire, except those of the legal profession present as counsel. Members present: Drs. Vastine, W. M. Reber, Evans, Case, Harder, McReynolds, Turner, Brown, Gardner, Lenher, McKelvey, Swisher, and Kline.

The Secretary then read the charges against Turner, as follows:—

As Dr A. L. Turner, a member of the Columbia County Medical Society, has been and is engaged in an irregular practice, which is in direct violation of the by-laws of above-named Society, and which must be regarded by the profession at large as a system of quackery, and must be regarded by all well-educated physicians as pernicious and hurtful to the public welfare, therefore I do request that you take proper action upon the following charges, in behalf of the profession, the Society, and the public good:—

Charge 1st. That Dr. A. L. Turner is in the practice of writing letters at a remote distance to persons afflicted with epilepsy, conveying the impression to them that he has knowledge of and means of cure of all fits, which is not known to the profession.

Charge 2d. That he has, or claims to have, a specific remedy for fits.

Charge 3d. That he has entered into a league with Moyer & Brothers to put up such medicines or nostrums.

Charge 4th. That his system of charges is in violation of the regulations of this Society.

Charge 5th. That he has never disclosed his method of practice to this or any other society, or to the profession at large.

Charge 6th. That he is in the practice of sending names of clergymen (Presbyterian clergymen) as reference for his good standing and ability as a physician and high-toned professional conduct.

The above I submit this 18th day of June, 1878.

J. R. EVANS.

The accused was present, and represented by Messrs. Barhly and Little.

On Charge 1st, Dr. Evans offered in evidence a letter (No. 2) dated Bloomsburg, Oct. 16, 1876, and addressed to Mr. S., in which

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Dr. Turner asserts his ability to cure epilepsy. Also a postal card (marked No. 3) dated Bloomsburg, Pa., and addressed to Robert Snodgrass, Esq., Oak Shade, Lancaster Co., Pa.

Charge 2d. Dr. Evans offered in evidence the letter above referred to; also postal cards Nos. 3, 4, and 5, addressed to Robert Snodgrass.

Charge 3d. Dr. Case was called, who stated that he had a conversation with one of the members of the firm of Moyer & Brothers, who told him that Dr. Turner and all the doctors received ten cents on each prescription compounded by them. Dr. Evans also offered in evidence letter above referred to (No. 2); also advertisement (No. 6).

Charge 4th. Letter above referred to offered in evidence on this charge.

Charge 5th. Refers to members of the Society on the point made in this charge.

Charge 6th. Postal cards Nos. 4 and 5 offered in evidence. Dr. Lenher, called upon to make a statement, stated that he met Dr. Priestley, of Northumberland, about a year ago; that Dr. P. referred to Dr. Turner having treated a case of fits successfully; said he would like to get a bottle of his medicine for a patient of his; desired Dr. Lenher to see Dr. Turner, and ask him to send a bottle of said medicine; Dr. L. saw Dr. T.; the latter replied that he did not put up his medicine in that way—that he treated special cases according to circumstances, etc.

Dr. Gardner called, in reference to Dr. Turner taking charge of a case attended by Dr. Evans, saying he had heard it through others that Dr. Turner had spoken derogatory of Dr. Evans's ability, etc.; that he had heard Dr. T. speak disrespectfully of other members of the Society.

The prosecution closed its evidence.

The attorneys for Dr. Turner denied the charges made by Dr. Evans *entire*, and made a plea to the Society in his defence.

Dr. Evans then made an appeal to the Society in favor of the conviction of Dr. Turner on the charges preferred. The Society proceeded to vote.

The President appointed Drs. Lenher and Brown to act as tellers, Secretary acting as clerk.

Result of vote on the different charges—

1st charge.	Guilty,	7.	Not guilty,	5.	Not sustained.		
2d "	"	7	"	"	5	"	"
3d "	"	6	"	"	6	"	"
4th "	"	9	"	"	4	Charge sustained.	
5th "	"	9	"	"	4	"	"
6th "	"	9	"	"	4	"	"

The vote on fixing a penalty was as follows: In favor of expulsion, 8; suspension, 1; reprimand, 4; the majority of the votes being for expulsion. Dr. Turner requested of the Society a copy of the records of the Society in reference to his resignation. The President ordered the Secretary to furnish the same. Dr. T. also requested a copy of the record of the proceedings of this trial.

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The above I believe to be a correct record of the proceedings of the meeting held July 12, 1879, as far as it relates to this case.

The application for withdrawal from the Society was made while under charges.

Respectfully, etc.,
L. B. KLINE,
Secretary.

On motion of Dr. ALLIS, the following resolutions were adopted:

Resolved, That the Philadelphia County Medical Society be constituted the custodian of the publications of the Pennsylvania State Medical Society, and of the Transactions of such other States as shall exchange with it, until the Pennsylvania State Medical Society shall make some other provision for the same.

Resolved, That the Publication Committee be constituted a Library Committee, to report, at the next meeting of this Society, the rules and necessities of such a library.

Dr. ALLIS called up the amendment to the Constitution, as offered last year:—

"If any member or members of a county medical society shall violate the code of medical ethics, it shall be the duty of the said county medical society to discipline said member or members, and if any county medical society shall refuse or neglect to do so, it shall be the duty of the Censors of the State Medical Society, on being notified of such delinquency, to officially notify said medical society of the charges made against it. And in case said county medical society shall neglect or refuse to investigate said charges, and to discipline the members so charged, within six months from the time so officially notified, said county medical society shall forfeit all its privileges and connections with the State Medical Society, and the severance shall be publicly announced at the ensuing annual meeting of the State Medical Society."

On motion, the amendment was adopted.

Dr. R. CLARKE read a communication from Mr. Charles E. Pugh, General Superintendent of the Pennsylvania Railroad, extending an invitation to the Society to make an excursion to Cresson. The invitation was accepted, with thanks, and 8 o'clock on Thursday morning fixed as the time to leave for the mountain top, returning at 9.30.

Dr. JOHN L. ATLEE, of Lancaster, moved that the graduates of colleges of pharmacy be not included as laymen as referred to in the code of ethics, in article 1, section 3, Duties of Physicians to each other. After much discussion, on motion of Dr. W. B. ULRICH, it was laid on the table.

On motion the Society adjourned until 2.30 P. M.

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Afternoon.

The President called the Society to order at 2½ P. M.

On motion of Dr. J. A. MURPHY, Dr. J. S. FULTON, of Philadelphia, was invited to a seat.

Dr. J. T. CARPENTER, of Schuylkill Co., then delivered the Address in Obstetrics.

On motion of Dr. DALE, of Cumberland Co., the thanks of the Society were tendered to Dr. CARPENTER for his able paper, and it was referred to the Committee of Publication.

Dr. JOHN V. SHOEMAKER, of Philadelphia Co., read a paper on "New Remedies in the Local Treatment of Skin Diseases."

After discussion by Drs. B. LEE and W. T. TAYLOR, on motion of Dr. S. T. DAVIS, of Lancaster Co., the thanks of the Society were tendered to Dr. SHOEMAKER. and the paper was referred to the Committee of Publication.

Dr. WM. H. PANCOAST, of Philadelphia Co., made some remarks on Synovitis, and exhibited a number of specimens. He also exhibited several new surgical instruments.

On motion of Dr. LEE, he was requested to reduce his remarks to writing, for reference to the Committee of Publication.

The subject was discussed by Drs. LEE, HEWSON, ATLEE, VARIAN, and BARR.

On motion of Dr. R. CLARKE, Dr. ROBERT DEVEREAUX, of Summit, Cambria Co., was invited to a seat with the Society.

Dr. TRAILL GREEN, of Northampton Co., Chairman of the Committee to inquire into the status of Dr. J. P. SEILER, of Harrisburg, read the following:—

Harrisburg, Pa., Oct. 9, 1879.

To the Medical Society of the State of Pennsylvania.

The undersigned, members of the Committee appointed by your body at its late annual meeting in Chester, to investigate the status of Dr. J. P. SEILER, respectfully report, That they met in Harrisburg on the day above named, that they heard the Standing Committee of the Dauphin County Medical Society, Drs. P. A. HARTMAN, C. A. RAHTER, H. O. WITMAN, J. C. HUTTON, and H. L. ORTH, also Dr. J. P. SEILER, Dr. DALE, and Dr. LEAMAN, one of the Censors who heard Dr. SEILER's appeal, and having examined the Constitution of your Society we are unanimously agreed that the incomplete Report of the Censors as made to the Society at Chester (Transactions, 1879, pages 530 and 548), leaves the status of Dr. J. P. SEILER as it was in the Dauphin County Medical Society at the time of his expulsion. Respectfully submitted,

TRAILL GREEN, *Chairman.*
ALEX. CRAIG.
J. W. C. O'NEAL.
WM. F. KNOX.
WILLIAM ANDERSON.

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On motion of Dr. J. L. STEWART, of Erie Co., the report of the Committee was received, adopted, the Committee discharged, and orders drawn on the Treasurer for payment of services rendered by them.

Dr. DALE asked the decision of the President as to the status of Dr. SEILER.

After much discussion, Dr. A. H. SHEAFFER, of Mifflin Co., moved that the Society proceed with the general order of business.

This being objected to by several members, Dr. SHEAFFER desired to withdraw the motion, but as objection was made, the President decided that he could not do so.

A vote having been taken, it was lost by 46 ayes to 49 nays.

Dr. WM. VARIAN, of Crawford Co., then offered the following, which was adopted:—

Resolved, That it is the opinion of this Society that the status of Dr. SEILER has been settled by the adoption of the report of the Special Committee, and that Dr. SEILER is now an expelled member of Dauphin County Medical Society.

On motion, it was agreed that the county delegates should select their members of the Nominating Committee immediately after adjournment.

On motion of Dr. ATLEE, the citizens of Altoona were invited to hear the President's Address this evening.

On motion, adjourned until evening.

Evening.

8 P. M. Vice-President, Dr. W. B. ULRICH, of Delaware Co., in the chair.

The ex-Presidents were invited to seats on the platform.

The President, Dr. ANDREW NEBINGER, of Philadelphia Co., then delivered the Annual Address.

On motion of Dr. W. W. DALE, of Cumberland Co., the thanks of the Society were tendered the President for his able, interesting, and instructive Address, and it was referred to the Committee of Publication.

On motion, the Society adjourned to meet at 9½ A. M., on Thursday.

THURSDAY, May 20.

The Society was called to order at 9½ A. M. by the President.

Prayer was offered by Rev. A. S. WOODLE, of St. Luke's P. E. Church.

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The Permanent Secretary announced the following as the Committee on Nominations:—

Adams County, O. W. THOMAS. Allegheny, J. M. STEVENSON. Armstrong, T. H. ALLISON. Berks, L. DEB. KUHN. Butler, J. E. BYERS. Centre, E. S. DORWORTH. Chester, J. W. HUGHES. Clarion, J. F. ROSS. Clearfield, F. TODD. Clinton, A. FISHBURNE. Crawford, J. D. LITTLEFIELD. Cumberland, W. W. DALE. Dauphin, C. A. RAHTER. Delaware, E. FUSSELL. Erie, J. L. STEWART. Fayette, J. T. SHEPLER. Franklin, J. C. GILLAND. Fulton, H. S. WISHART. Huntingdon, ISAAC GUSS. Indiana, WM. ANDERSON. Jefferson, A. P. COX. Lackawanna, L. H. GIBBS. Lancaster, ALEX. CRAIG. Luzerne, J. A. MURPHY. Lycoming, THOS. LYON. Mercer, D. H. MINGLE. Mifflin, J. M. BROWN. Montour, ISAAC PURSELL. Northampton, A. K. SEEM. Perry, G. W. EPPLEY. Philadelphia, ADDINELL HEWSON. Schuylkill, W. C. J. SMITH. Snyder, H. H. BORDNER. Tioga, E. S. ROBINS. Washington, C. B. WOOD. Westmoreland, L. OFFUT. York, H. C. ALLEMAN.

The Committee were instructed to meet at once.

Reports of County Medical Societies were presented, and, on motion, were severally referred to the Committee of Publication.

The Committee on State Board of Health presented their report, which was accepted and the Committee continued.

The Committee on a State Board of Health beg leave respectfully to report that, in accordance with the resolution of this Society, at its last annual meeting at Chester, a telegram was sent to the Legislature of the State of Pennsylvania, then in session, embodying the resolution of Dr. J. S. Crawford, of Lycoming County Society, seconding the bill then before the House of Representatives and urging its adoption. Owing to unfortunate complications in the Legislature, however, to which it is not necessary to refer by name, no action was taken upon the bill by that body. There having been no meeting of the Legislature during the past winter, a delay of two years has thus been unfortunately entailed in the prosecution of this important reform. So general, however, is the interest in sanitary progress at the present time, both among the public and in the profession, that your Committee feel confident that our Legislature must, ere long, yield to the pressure of an intelligent public sentiment. They, therefore, respectfully beg leave to be continued.

WM. B. ATKINSON, *Chairman.*
BENJAMIN LEE, *Secretary*

Dr. R. L. SIBBETT, Chairman of the Committee on Medical Legislation, presented a report.

On motion of Dr. W. VARIAN, the thanks of the Society were tendered for this able report, the Committee was continued, and the report was referred to the Committee of Publication.

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After some discussion, on motion of Dr. WILLIAM PEPPER, of Philadelphia Co., it was

Resolved, That the Committee on Medical Legislation be authorized to confer with any representative medical men in Philadelphia to secure efforts to stop the traffic in diplomas.

On motion of Dr. TRAIL GREEN, of Northampton, the Permanent Secretary was directed to call the roll of counties and see, 1st, how many have appointed a Board of Medical Examiners, as directed two years since by this Society; and 2d, if any young men in said counties have entered upon the study of medicine during the past two years.

The responses to the interrogatories seemed to have special bearing on the first question only, and the following counties answered it affirmatively:—

Allegheny, Armstrong, Berks, Blair, Centre, Chester, Dauphin, Delaware, Erie, Huntingdon, Indiana, Jefferson, Lancaster, Mercer, Mifflin, Northampton, Schuylkill, Tioga, Washington, York.

Dr. J. L. ZEIGLER, of Lancaster Co., moved that no delegates from a county medical society be allowed to take seats at the session of next year, unless they bring evidence of having complied with the law requiring the appointment of medical examiners.

After some discussion, a motion to lay this on the table was lost by a large negative vote, after which the resolution was adopted.

Dr. JOHN CURWEN, of Dauphin Co., made a report from the Committee on Epilepsy and Insanity.

But one county had responded to the circular of the Committee, and hence no data had been obtained. On motion, the report was received and the committee continued.

On motion of Dr. J. SOLIS COHEN, of Philadelphia Co., it was agreed that the papers crowded out on Wednesday be read in their order after the completion of the regular order of business for the day.

On motion of Dr. ROWAN CLARKE, the Nominating Committee was allowed to report.

Dr. W. W. DALE, on behalf of the Committee on Nominations, presented their report, as follows:—

The Nominating Committee report the following officers and delegates for the year 1881:—

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President.

J. T. CARPENTER,	Schuylkill County.

Vice-Presidents.

WILLIAM VARIAN,	Crawford County.
W. R. COWDEN,	Butler "
THOMAS LYON,	Lycoming "
C. A. RAHTER,	Dauphin "

Permanent Secretary.

WILLIAM B. ATKINSON,	Philadelphia County.

Recording Secretary.

ALEXANDER CRAIG,	Lancaster County.

Corresponding Secretary.

O. H. ALLIS,	Philadelphia County.

Treasurer.

BENJAMIN LEE,	Philadelphia County.

Place of meeting, Lancaster. Time 2d Wednesday of May.

The Committee of Publication will remain the same as at present, viz.:—

WM. B. ATKINSON,	Philadelphia County.
BENJ. LEE,	" "
WM. GOODELL,	" "
O. H. ALLIS,	" "
J. G. STETLER,	" "
JAS. TYSON,	" "
ISAAC N. KERLIN,	Delaware "

Dr. ADDINELL HEWSON, of Philadelphia, to be a member of the Standing Committee, vice Dr. JAS. KING, deceased.

Delegates to American Medical Association.

HENRY H. SMITH,	Philadelphia County.
A. H. SHEAFFER,	Mifflin "
JAMES OGLEBY,	Montour "
J. F. ROSS,	Clarion "
L. G. MAYER,	Mercer "
L. H. GIBBS,	Lackawana "
P. B. BREINIG,	Northampton "
J. B. BURCHFIELD,	Clearfield "

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. H. HELSBY,	Lycoming County.
J. MCMICHAEL,	Butler "
L. DE B. KUHN,	Berks "
W. C. ROLLER,	Blair "
I. N. KERLIN,	Delaware "
G. W. BROWN,	Schuylkill "
B. F. GARDINER,	Columbia "
T. J. GALLAHER,	Allegheny "
J. A. REED,	" "
JOHN H. PACKARD,	Philadelphia "
D. P. MILLER,	Huntingdon "
J. H. BITTINGER,	York "

Delegates to New Jersey State Medical Society.

GEORGE D. NUTT,	Lycoming County.
J. W. HOUSTON,	Chester "
O. H. ALLIS,	Philadelphia "
J. V. SHOEMAKER,	" "
H. L. ORTH,	Dauphin "

Delegates to New York State Medical Society.

J. E. SILLIMAN,	Erie County.
T. H. HAYS,	Centre "
E. R. MERRILL,	Luzerne County.
W. P. SHOEMAKER,	Clarion "

Delegates to Ohio State Medical Society.

A. P. COX,	Jefferson County.
J. H. FISHBURNE,	Clinton "
G. E. LYTLE,	Washington "
B. E. MOSSMAN,	Mercer "

Delegates to Delaware State Medical Society.

ISAAC PURCELL,	Montour County.
JOSEPH SWARTZ,	Perry "
B. F. WAGONSELLER,	Snyder "

Delegate to West Virginia State Medical Society.

W. S. DUNCAN,	Fayette County.
E. PHILLIPS,	" "
O. L. BLACHLEY,	Washington County.

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Delegates to Maryland State Medical Society.

CHARLES HORNER,	Adams County.
H. ALLEMAN,	York "
C. W. KRISE,	Cumberland County.
R. P. EWING,	Chester "

Delegates to Massachusetts State Medical Society.

H. M. BISHOP,	Mercer County.
J. D. LITTLEFIELD,	Crawford "
TRAIL GREEN,	Northampton County.
ANDREW NEBINGER,	Philadelphia "

Delegates to Connecticut State Medical Society.

DANIEL J. BRUNER,	Lancaster County.
J. A. MURPHY,	Luzerne "
WILLIAM VARIAN,	Crawford, "

No change was made in the Censors, save in the Eleventh District, where B. H. Detweiler was made Censor in place of T. Lyon.

On motion of Dr. ROWAN CLARKE, the report was received, the officers were elected, and the committee was discharged.

Dr. JOHN H. PACKARD, of Philadelphia Co., then read the Address in Surgery.

On motion of Dr. W. W. DALE, the thanks of the Society were tendered Dr. PACKARD, and the Address was referred to the Committee of Publication.

Dr. ISAAC N. KERLIN, of Delaware Co., read the Address in Mental Disorders.

On motion of Dr. J. CURWEN, it was also referred to the Committee of Publication.

Dr. WILLIAM GOODELL, of Philadelphia Co., read a paper entitled "Clinical Observations on the Radical Treatment of Fibroid Tumors."

On motion of Dr. DALE, thanks were tendered Dr. GOODELL, and the paper referred to the Committee of Publication. Remarks on the paper were made by Drs. DALE and GALLAHER.

Dr. J. SOLIS COHEN, of Philadelphia Co., read a paper on Hyperdistension of the Air Cells as a Therapeutic Measure; illustrated by an instrument for the purpose.

On motion of Dr. GALLAHER, Dr. COHEN was thanked, and the paper was referred to the Committee of Publication.

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Dr. WM. PEPPER, of Philadelphia Co., read a paper entitled, "Practical Remarks on the Treatment of Asthma."

On motion, the paper was referred to the Committee of Publication.

The Treasurer, Dr. BENJAMIN LEE, of Philadelphia Co., reported, showing a balance in favor of the Society, of over $1700.

Drs. T. GREEN, W. W. DALE, and W. H. DALY, were appointed to audit his account.

They reported that the accounts were correct, and were discharged.

On motion, the Society adjourned until 9 A. M. on Friday.

FRIDAY, May 21.

The President, Dr. NEBINGER, called the Society to order at 9 A. M.

The Permanent Secretary read a telegram from Prof. S. D. GROSS, "sending his cordial greetings."

On motion, it was ordered to be entered upon the minutes.

Dr. W. W. DALE offered the following amendment to the Constitution: Amend Article V Section 5, by adding: "Which action shall be final; provided, however, that either party may appeal to the President of the State Society, who may direct the Censors of an adjoining district to hear and to determine the case, and to report their action to the Society, which shall be final.

The amendment was laid over for one year.

On motion of Dr. J. H. PACKARD, of Philadelphia Co., the officers of the Society were instructed to append their signatures to the petition to the Legislature, relative to the secrecy of communications made by patients to their physicians: the petition so signed to be returned to the joint committee on that subject raised by the medical societies of Philadelphia, for their further action.

Dr. WM. B. ATKINSON, Chairman of the Committee of Publication, reported as follows:—

ALTOONA, May 19, 1880.

The Committee of Publication beg leave respectfully to report that they had printed 1450 copies of the volume of *Transactions* of this Society, for the year 1879, at an expense, including distribution, of $1333 84. The volume consists of 492 pages, and contains one map and sixteen cuts.

They have distributed:—

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To County Medical Societies	1274
To Medical and other Journals	43
To State Medical Societies	35
To State Boards of Health and Health Officers .	43
To Library of Congress	1
To Library of American Medical Association .	1
To Library of State Capitol	1
To Library of Surgeon-General's Office, Washington, D. C.	1
To Library of "Sanitary Protection Association," Newport, R. I.	1
To Bureau of Meteorology, War Department .	1
To Smithsonian Institution (Professor Kirkpatrick)	1
Reserved for Archives	2
Sold	3
Remaining on hand	43
	1450

It will therefore be noticed that the number of copies required by county societies was larger than the number thus required in the year previous, by seventy-five.

Your Committee have also furnished one copy of the *Transactions* of the year 1878 to Dr. J. W. DUPRÉ, President of the Medical Society of the State of Louisiana, and one copy of the same year to the Convention for the Revision of the United States Pharmacopœia.

All of which is respectfully submitted.

WM. B. ATKINSON,
Chairman.
BENJAMIN LEE,
WILLIAM GOODELL,
O. H. ALLIS,
J. G. STETLER,
JAMES TYSON,
I. N. KERLIN.

On motion, the report was received, and ordered to be entered on the minutes.

On motion of Dr. BENJAMIN LEE, it was

Resolved, That 1500 copies of the Constitution and By-Laws and Code of Ethics be printed and covered in a style corresponding to that of the *Transactions*, for distribution to the county medical societies, as called for by their respective secretaries, and that no further copies of these documents be printed until so ordered by this Society.

Dr. BENJAMIN LEE, of Philadelphia, then read the Address in Hygiene.

The Address closed with the following resolutions, which were

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adopted, and the Address was referred to the Committee of Publication:—

Resolved, That it is the sense of this Society that it is expedient that every city or town provided with a system of sewerage should have provision made for the inspection of the plumbing and drainage of all houses and buildings having connections with its sewers, and, therefore,

Resolved, That a committee be appointed to memorialize the Legislature of this Commonwealth, with a view to procuring the passage of an enactment providing for the appointment of an Inspector of Plumbing and Drainage in all such towns and cities, and that the following bill be respectfully suggested to the Legislature as an appropriate form for such enactment.

On motion of Dr. J. L. ATLEE, of Lancaster, the draft of a law was amended, to include a penalty for its infraction.

Committee: Drs. B. LEE, W. W. DALE, and FRANK WOODBURY.

Dr. E. H. COOVER, of Dauphin Co., read a paper on "The Construction and Advantage of a New Mechanical Appliance for the Treatment of Diseases of the Spine."

This paper was discussed by Drs ULRICH, DAVIS, LEE, RAHTER, BARR, and VARIAN; and Dr. C. T. HUNTER, of Philadelphia, exhibited a jacket made of leather for the same purpose.

On motion the paper was referred to the Committee of Publication.

By request of Dr. ALLIS, he was permitted to withdraw his paper on "Deformities after Fracture near Joints," and offer it another year. He made some remarks on the subject, and exhibited casts of deformities.

Dr. B. LEE offered a report on "The Abuse of Medical Charities," as referred by the Philadelphia County Medical Society to this body.

On motion it was received and ordered to be printed with the Transactions.

Dr. S. M. ROSS, of Blair Co., made some remarks on "Conservative Surgery," and exhibited a number of cases illustrating his success in this effort.

After discussion of the cases by Dr. A. HEWSON and others, on motion he was requested to prepare his remarks for publication.

Dr. D. M. BARR, of Philadelphia Co., read a paper on "Anæsthesia in Labor," and exhibited a new form of inhaler.

On motion, as there was no time for its full discussion, the paper was referred to the next session of the Society.

Dr. C. A. RAHTER, of Dauphin Co., offered the following amendment to the Constitution, which was laid over till next session:—

Amend Article IV. Section 1: After the word Treasurer add "Judicial Council."

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Also, By-Laws, Article I., substitute for Section 10:—

"A Council, consisting of nine members, shall be elected, whose duty it shall be to take cognizance of and decide all questions of an ethical or judicial character that may arise in connection with the Society. Of the nine members of the Council first elected, the three first named on the list shall hold office one year, and the second three named shall hold office for two years. With these exceptions the term of office of members of the Council shall be three years, three being elected annually.

"The said Council shall organize by choosing a President and Secretary, and shall keep a permanent record of its proceedings. The decisions of said Council, on all matters referred to it by the Society, shall be final, and shall be reported to the Society at the earliest practicable moment. All questions of a personal character, including complaints and protests, and all questions on credentials, shall be referred at once, after the report of the Committee of Arrangements, or other presentation, to the Judicial Council, and without discussion."

On motion of Dr. ULRICH, Dr. LEE was permitted to read a paper, "Alkaloids of Cinchona," after Dr. Roberts' paper.

The President announced the following appointments for 1881:—

To make the "Address in Medicine," Dr. J. SOLIS COHEN, of Philadelphia Co.

"Address in Surgery," Dr. S. M. ROSS, of Blair Co.

"Address in Obstetrics," Dr. S. T. DAVIS, of Lancaster Co.

"Address in Hygiene," Dr. B. LEE, of Philadelphia Co.

"Address in Mental Disorders," Dr. S. S. SCHULTZ, of Montour Co.

Dr. J. B. ROBERTS, of Philadelphia Co., read a paper on "Bromide of Ethyl as an Anæsthetic in Practical Surgery." After some discussion by Drs. BURCHFIELD, VARIAN, and ATLEE, on motion of Dr. W. H. PARISH, of Philadelphia Co., it was referred to the Committee of Publication. On motion of Dr. ALLIS, thanks were rendered Dr. ROBERTS for his able paper.

On motion of Dr. ALLIS, it was

Resolved, That a committee of five be appointed by the Chair, whose duty it shall be to present at the next annual meeting of this Society rules of order for the regulation of the proceedings of the stated meetings of this Society. Said "Rules of Order" to be printed annually, upon the programme of the State Medical Society.

The President appointed as this Committee, Dr. ALLIS, Chairman; Dr. W. B. ULRICH, of Delaware Co.; Dr. W. B. ATKINSON, Dr. J. H. PACKARD, and Dr. FRANK WOODBURY, of Philadelphia Co.

Bills to the amount of $79.77 were presented by the Committee of Arrangements, and ordered paid.

On motion of Dr. A. M. MILLER, of Lancaster Co., it was

Resolved, That the thanks of the Society be returned to the Committee of Arrangements, and to the Blair County Medical Society,

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for the able manner in which they have cared for the wants of the Society, and contributed to the success of the meeting; to the officers of the Society for their faithful labors in the performance of their duties, and to the various railroad companies for courtesies extended in reducing the fares to this meeting.

Resolved, That a special vote of thanks be extended to the officers of the Pennsylvania Railroad, for their courtesy to the Society, and especially to the General Superintendent Pugh, for his kindness in furnishing accommodations to the members of this body in the very interesting and delightful excursions with which we have been favored.

Dr. B. LEE read his paper on "Alkaloids of Cinchona." It was discussed by Drs. ZEIGLER, AMICK, and CARPENTER.

On motion, it was referred to the Committee of Publication.

Dr. J. T. CARPENTER, of Schuylkill Co., offered the following, which was laid over till next year:—

Amendment to the Constitution, Article III. Section 2. The delegates shall receive their appointments from the county societies, and from the College of Physicians of Philadelphia.

Dr. W. H PARISH, of Philadelphia Co., read a paper on "Puerperal Septicæmia."

Dr. J. L. ZEIGLER, of Lancaster Co., in discussion, related his own case of poisoning of his arms by liquor amnii.

On motion, the paper and remarks were referred to the Committee of Publication.

Further discussion was had by Drs. CARPENTER and STRICKLER

On motion of Dr. ALLIS, thanks were tendered Dr. PARISH for his able, instructive, and interesting paper.

Dr. S. T. DAVIS, of Lancaster Co., read, by title, a paper on "Large Submucous Fibroid of the Uterus."

On motion, it was referred to the Committee of Publication.

Dr. B. LEE made some remarks on the "Axial Line of the Foot," illustrated by two mammoth wooden diagrams, and by tracings of the soles of patients and others.

On motion of Dr. COHEN, he was requested to prepare his remarks for publication.

The President appointed Drs. ALLIS and SMITH to escort the officers elect to their posts.

Vice-President Dr. ULRICH then introduced the President elect, Dr. J. T. CARPENTER, who took his seat, after a few remarks thanking the Society for the honor done him.

On motion, the Society adjourned to meet at Lancaster, on the second Wednesday of May, 1881, at 9 A. M.

WM. B. ATKINSON,
Permanent Secretary.

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CENSORS.

1st *District.*

(Philadelphia, Delaware, and Chester Counties.)

A. FRICKE,	Philadelphia County.
ISAAC N. KERLIN,	Delaware "
JAS. FULTON,	Chester "

2d *District.*

(Bucks, Northampton, Lehigh, Carbon, Monroe, and Pike Counties.)

J. B. WALTER,	Bucks County.
TRAILL GREEN,	Northampton County.
WM. B. ERDMAN,	Lehigh County.

3d *District.*

(Montgomery, Berks, and Schuylkill Counties.)

HIRAM CORSON,	Montgomery County.
W. MURRAY WEIDMAN,	Berks "
D. W. BLAND,	Schuylkill "

4th *District.*

(Lancaster, Lebanon, Dauphin, Perry, and Snyder Counties.)

BRAINARD LEAMAN,	Lancaster County.
H. O. WHITMAN,	Dauphin "
H. O. ORRIS,	Perry "

5th *District.*

(Cumberland, York, Adams, Franklin, amd Fulton Counties.)

S. B. KIEFFER,	Cumberland County.
J. W. C. O'NEAL,	Adams "
JNO. W. KERR,	York "
SAMUEL G. LANE,	Franklin "

6th *District.*

(Juniata, Mifflin, Huntingdon, Blair, Cambria, Bedford, and Somerset Counties.)

A. H. SHEAFFER,	Mifflin County.
D. P. MILLER,	Huntingdon County.
JOHN FAY,	Blair "
J. G. WILSON,	Cambria "
D. S. GRIFFITHS,	Bedford "

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7th District.

(Fayette, Westmoreland, Indiana, and Armstrong Counties.)

W. S. DUNCAN,	Fayette County.
D. G. MCCONAUGHY,	Westmoreland County.
WM. ANDERSON,	Indiana "

8th District.

(Allegheny, Washington, and Greene Counties.)

W. S. FOSTER,	Allegheny County.
S. L. BLACHLEY,	Washington "

9th District.

(Butler, Beaver, Lawrence, Mercer, Venango, and Clarion Counties.)

SAMUEL GRAHAM,	Butler County.
D. S. MARQUIS,	Beaver "
E. GRISWOLD,	Mercer "
W. S. WELSH,	Venango "
JAS. ROSS,	Clarion "

10th District.

(Erie, Crawford, Warren, Jefferson, Forest, Elk, McKean, Potter, and Cameron Counties.)

A. S. BONSTEEL,	Erie County.
T. J. YOUNG,	Crawford County.
DAVID BEST,	Crawford "

11th District.

(Clearfield, Centre, Clinton, Tioga, Lycoming, Northumberland, and Union Counties

A. HIBLER,	Centre County.
C. K. THOMPSON,	Tioga "
B. H. DETWEILER,	Lycoming "

12th District.

(Montour, Columbia, Luzerne, and Sullivan Counties.)

JAS. D. STRAWBRIDGE,	Montour County.
E. R. MAYER,	Luzerne "

13th District.

(Bradford, Wyoming, Susquehanna, and Wayne Counties.)

D. N. NEWTON,	Bradford County.
L. A. SMITH,	Susquehanna County.

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ADDRESS

OF

ANDREW NEBINGER, M.D., PRESIDENT.

GENTLEMEN, MEMBERS OF THE
MEDICAL SOCIETY OF THE STATE OF PENNSYLVANIA.

THE thirty-first anniversary of the Society has brought us together for friendly greetings; to note the changes of the past; to take advance steps, that the future may be an improvement upon the past; to call the roll, note those present, and with saddened hearts make honorable mention of those who, having finished up their work,

> "sustained and soothed
> By an unfaltering trust, approached the grave,
> Like one that draws the drapery of his couch
> About him, and lies down to pleasant dreams."

A year has passed since last we met. In that brief period, of what changes have taken place I may not be chronicler. Yet changes have been realized, some good and pleasant, some fruitful with the blessings of peace, plenty, and happiness. The young have grown older and wiser, and we may hope better; the useful more useful; the charitable more charitable as their stores of riches have increased; but the old have grown older, and those who but a few years ago were noted for activity and great usefulness, are yielding to the weight of years, and feel that they are being disqualified to be active laborers in season and out of season, in their great and extended field of usefulness. With them the past is vastly lengthened out, and the future is growing shorter and shorter, so that when taking a retrospective view of the past, they can but dimly scan its beginning, and in looking forward, the end of their work and of time, and to the commencement of eternity, it appears to be so near and rapidly approaching, that they fain would make ready for their departure to "that undiscovered country from whose bourn no traveller returns."

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A home view presents now to us, all that which goes to make up the happiness of peoples, states, and nations. Peace spreads her white wings over us, the earth yields its abundance to intelligent skilled industry. After a decade of years, of almost death-like stillness, the hum and whir, the music of the great human hives of industry are again greeting our ears. Those who too long suffered from enforced idleness, no longer complain of want of employment. The avenues of trade are quick with the jostling stir of business; capital is being profitably and we hope wisely employed. Labor is being more engaged and better compensated. Want is the exception, plenty the rule. Fraud, peculation, embezzlement, and jobbery, national, state, and municipal, have become, and are becoming less prevalent, less fashionable. Snobbery, extravagance, and shoddyism, are fast being numbered among the things to be forgotten. Honesty, fair dealing, prudence, and a more general healthful condition of state and of society are beginning to assume their legitimate rule, and thus while the millennium of Revelation is not near at hand, social and governmental chaos are not now threatened. The sun of prosperity, and the atmosphere of good fellowship, are, from the shores of the Atlantic to those of the Pacific, from the Gulf of Mexico to Alaska, warming, animating all the people of this our God-favored land. That we may the better and the more fully realize the goodness and grandeur embodied in this statement, let us call before us, for contemplation, the woe, want, and wretchedness of a people to whom many of us are allied by ties of consanguinity. Woe, want, and wretchedness, the natural outgrowths of misrule, cruel, unjust, oppressive, and partial legislation, are the bitter fruits of which these people are now the partakers. Numbers of them, exceeding a million, are at this hour, and have been for months, suffering the dreadful agonies of hunger unappeased. Famine and disease are their every-day afflictions. Premature death riots among them. Thus placing in contrast the sad condition of these misruled people, with the almost gushing prosperity of our own people (largely the result of our "home rule"), we may learn the better to cherish, and the more adequately to measure, the benignity of the government which we proudly call our own. O Erin, down-trodden and oppressed Erin! I love and cherish you because of your statesmen, your scholars, your martyrs, your poets, your sons, the soldiers who fought and died upon our revolutionary battle-fields, and upon the battle-fields of the war of our second revolution, as upon those battle-fields, where their blood was poured out and their lives were offered up, holy sacrifices for that Union which has been strengthened by the resistance made to it, and the vain but extraordinary efforts

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made for its destruction. O Erin, Green Isle of the Ocean! I love and almost adore you, not alone because of your long list of great names and your brave sons, but because of her from whose loins I sprang.

I have said that we have met to note the changes of the past; to take advance steps, that the future may be an improvement upon the past. In keeping with this declaration, let us counsel together upon that somewhat trite, but nevertheless important subject, medical education, or the preparation required for the reception of the doctorate of medicine. What is the condition of medical education or teaching not only in our State, but all over our land? Are the medical colleges now graduating young men *well* qualified for the discharge of the highly responsible duties of the profession of medicine? Are the present courses of studies of the many medical colleges uniform, and such as to secure to their graduates the didactic and clinical knowledge which is necessary to qualify them to enter upon the discharge of their professional duties, with due regard to the dignity of the profession and full appreciation and observance of the rights, the reasonable demands, and safety of those who may pass into their care? These are grave and solemn questions, and are within the range of intelligent answers. Year by year, the cry has gone up from the profession from all parts of the land, that reform in the *modus operandi* of producing graduates of medicine should be made. There have been many earnest, intelligent, and able laborers engaged in the work of medical reform, as regards the extent and quality of the teaching of our medical colleges, their requirements for matriculation and graduation, and the unification of the studies. Since 1847, scarcely a meeting of the American Medical Association has been held that there have not been valuable reports from committees, or papers of great interest of individual members of the Association upon the subject of medical education read, directed to be embalmed in the volumes of the Transactions of the Association; followed occasionally by slightly spasmodic action on the part of a few of the medical schools, in response to the recommendations of the committees and individual members, and the ponderous resolves of the great Association itself. Yet up to the present time it may be safely said, that with the exception of a few noteworthy instances, there has not been made any really positive "advance along the line," in the matter of the quality and quantity of medical teaching, and the requirements for matriculation and graduation of the medical colleges; so that the graduates of to-day are not turned out from the schools better qualified, if indeed as well qualified to practise their profession, and to worthily wear the

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degree of doctorate, than were the graduates of thirty years ago. This should not be. It is a wrong, yea, a great wrong to the profession of medicine, and if possible a greater wrong to the people.

The time was, when all that was known of that which was useful in medicine, in all its grand departments, could be taught didactically in two annual courses of four months each, to students who had received a good preliminary education, and had read medicine for one year previously to attending the lectures, with a painstaking, conscientious, intelligent preceptor. In the roll of thirty years, medicine in all its grand departments and in its many divisions and specialties has taken upon itself a growth, and has attained a size and extent which, when compared with medicine of fifty years ago, is as the man compared with the boy, the river with the rivulet. Have the improvements in the teaching of medicine, have the requirements of the medical colleges, kept pace with the grand march, the growth and grandeur of the art, or, if you like it better, the science of medicine? Are the students of to-day, as a rule, required by the colleges to be better prepared by a preliminary education, before matriculation, than they were thirty years ago? Is it, as a rule, demanded that students shall be longer engaged in the study of medicine, preparatory to presenting themselves for examination for the doctorate, than was the case thirty years ago? Are candidates, as a rule, required to pass a successful examination, by a greater number of professors, than was the case a quarter of a century ago? In short, have the medical schools' requirements for matriculation and graduation kept pace with the sum and quality of medicine? You are able to answer these questions without any assistance from me. Yet, by your kind indulgence, I will place before you some information which I have recently collected, which may not be without service in aiding you in the formation of your responses. I have collected the announcements for 1879–80, of nineteen medical colleges of the United States. Upon careful examination of these announcements, I find that they all *require* but three years' study of medicine, as far as the *time* is concerned, to enable the student to present himself for examination, for the degree of M.D., or as it is clearly set forth in "the Articles of Confederation of the American College Association," to wit:—

ARTICLE III. REQUIREMENTS FOR GRADUATION.

2. He must file a satisfactory certificate of having studied medicine for at least three years under a *regular* graduate, or licentiate and practitioner of medicine. No candidate shall be eligible for final examination for graduation, unless his term of three years'

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study shall have been completed, or shall expire at a date not later than three months after the close of the final examinations; this clause to take effect at and after the session of 1879–80.

From that which I have just read to you, it is clear, that by the "American Medical College Association," which, as you know, is an association of professors of medical colleges, three years' study of medicine is the extreme requirement, as regards the time from when the student commences reading medicine with a preceptor, until the time when the doctorate may be conferred upon him; with this exception, *that the term may be only two years and nine months* in some instances, as clause 2 of Article II. clearly sets forth that the student may graduate, if his term of study "shall expire at a date not later than three months after the close of his final examinations." *Thus making it clear that the student may have the doctorate conferred upon him at the expiration of two years and nine months after the commencement of his pupilage.* Is this, we ask, any improvement as regards the time required to be devoted to the study of medicine anterior to graduation, to that which was required thirty years ago? By the same "Articles of Confederation," of "The Medical College Association," which we here present to you, but "two regular" courses of lectures are required to be attended to qualify a candidate to present himself for examination for graduation. Sections 3 and 4 of Article III. read as follows:—

3. He must file the proper official evidence that, during the above-mentioned three years, he has matriculated at some affiliated college or colleges, for two regular sessions, and in the course of the same (except as provided in 4) has attended two full courses of instruction on the seven topics mentioned in Article II.

4. In case a college shall adopt a systematic graduated scheme of tuition, attendance on the whole of the same shall be equivalent to the requirements mentioned in 3, *provided* such scheme includes instruction in the *seven* topics mentioned in Article II., and requires attendance at at least two yearly collegiate sessions of not less than twenty weeks' duration each.

The seven branches of medicine mentioned in Article II. are, Anatomy, including Dissections, Physiology, Chemistry, Materia Medica and Therapeutics, Obstetrics, Surgery, Pathology and Practice of Medicine. Thus it will be seen that the demand, as far as the attendance upon lectures is required, is not any improvement upon the requirement of thirty years ago. True, the student may (that is, it is optional with him) attend three courses of "regular lectures," and at the close of each course he may go forward for

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examination upon certain branches, and passing a successful examination upon them, he will not be required to undergo a further examination upon these branches. Whether this is an improvement upon the old condition of things, or is merely a change, is for time and experience to determine. As regards the attendance upon *three* "regular courses of lectures," before presenting for examination, and this being optional with the student, and there not being any lecture fees charged for the third course, there is nothing new, and as far as I know it dates back to the days of Rush, Physick, James, Shippen, and Wistar, and therefore cannot claim any merit upon the score of newness or reform. The Articles of Confederation already referred to, and quoted, require that the course shall embrace twenty weeks. As far as the addition of about three weeks is concerned it is an improvement, and may be said to be a move in the right direction, and as such, is entitled to our profound thanks, and deserves our unqualified acknowledgment. Yet it is within our recollection, that two medical colleges of this country gave six months' or twenty-six weeks' regular courses, commencing in October and ending in April.

At one of these colleges, in the city of Philadelphia, I had the honor of having conferred upon me the degree of the Doctorate, April 6, 1850. Not being seconded in their work of reform by other medical colleges, indeed, it may be said, because of the opposition of these colleges, indirectly, yet very positively expressed, in their shorter courses, the tide of students which had in previous years set in towards their class-rooms, was to so large an extent diverted from them, because of the selfishness of other schools and the stimulant of pecuniary gains, resulting from increased numbers of matriculates, the two colleges referred to were, for their self-preservation, after, I think, about three years' perseverance in the lengthened courses, compelled to drop down in the matter of the length of the term to the level of the other colleges.

I have said that I have collected the Announcements of nineteen medical colleges of this country. While in nearly every one of these Announcements there is expressed and endorsed the necessity for a preliminary examination, by which the educational capacity and mental power of the applicant for matriculation may be tested, to enter upon the study of medicine, yet it may appear as strange to you as it does to me, that of these nineteen colleges but four require the candidates for matriculation to submit to so important an examination, through and by which alone can the medical colleges have their benches occupied by those who can fully comprehend and readily digest the teachings of the professors of the various depart-

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ments of those institutions. This is a very important branch of our subject, important alike to students, professors, communities, and persons. In the fulness of its importance, it demands that this body should not only calmly discuss it, but that it should give its best efforts to the adoption and enforcement of the requirement, as a proper means by which to determine the fitness of all who may present themselves, as postulants, for admission as pupils to our temples of medical education. This is the broad, deep, and strong foundation, upon which only can be built the grand superstructure which, by common consent, we may call true medical education. Who of us does not regard our system of medical education faulty, that the preliminary education of students in many instances is positively insufficient, that the "regular lecture courses" are defective, both in time and number, and that the requirements for graduation are not sufficient? Fearing that it may be said that these declarations are too sweeping, too radical, or, if you will, unfair, alike to students, graduates, and colleges, I will submit to you, for consideration, facts which have not been without their due influence upon myself.

In the Report of the Surgeon-General U. S. A. for 1879, page 18, I find the following facts: "There appeared before the Army Medical Examining Board 92 candidates, for examination for appointment to the medical corps of the U. S. Army. Of the 92 candidates there were found qualified but 13, the others were either rejected or withdrew after a partial examination." Thus it will be seen, that only 14 per cent., or *one out of every seven* of the 92 candidates, were found qualified to enter the U. S. Army as *assistant* surgeons. That it may not be thought that the candidates were submitted to an examination upon subjects not embraced in the curricula of the colleges, I here present to you the subjects of examination, etc., as set forth in the circular of the Secretary of War, October 31, 1876, which are now as they were at the date of the circular.

"The following will be the general plan of the examination:—

I. A short essay, either autobiographical or upon some professional subject—to be indicated by the Board.

III. Oral examination on subjects of preliminary education, general literature, and general science. The candidate must satisfy the Board in this examination that he possesses a thorough knowledge of the branches taught in the primary schools, and a failure to show this will end his examination.

Oral examination on scientific subjects will include Chemistry and Natural Philosophy; and that on literary subjects will include

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English Literature, History of the United States, and General History—ancient and modern.

IV. Written examination on anatomy, physiology, surgery, practice of medicine and general pathology, obstetrics, and diseases of women and children. Oral examination on these subjects, and also on medical jurisprudence, materia medica, therapeutics, pharmacy, toxicology, and hygiene. Few candidates pay the attention to hygiene which it deserves; it is made an important subject in this examination.

V. Clinical examination, medical and surgical, at a hospital.

VI. Performance of surgical operations on the cadaver."

Here are facts suggestive of grave thought. As we have seen, 13 only of the 92 candidates for examination were successful! Each of the 92 was possessed of a diploma, bearing the signatures of learned professors, and the seal of the college duly affixed. Diplomas, which set forth in the main that each of their possessors had been examined, that their examination was satisfactory, that they were worthy to be introduced into the profession of medicine, deserving of the degree of M.D., and were competent to enter upon the duties and assume the great responsibilities incident to the practice of medicine, yet when brought to the test trials of the Board of Medical Examiners of the U. S. Army 13 only were declared prepared to enter the U. S. Army as assistant surgeons, and 79 were virtually declared unfit to take upon themselves the discharge of the duties which the medical Alma Mater of each had declared they were qualified to perform. Could a more humiliating, a sadder, commentary be presented upon the work which is being done, or rather not done, by our medical colleges? If the rejected candidates for positions, as assistant surgeons, were not sufficiently qualified to have intrusted to them the health and life interests of the soldiers, rank and file of the U. S. Army, were they qualified to have intrusted to them the same interests of civilians? I can hope that this is not a representative condition of all the graduates of the majority of the medical schools of the country—but who will rashly declare it is not? Be this as it may, there is sufficient in the facts and figures to indicate, that the medical colleges of the country, north, south, east, west, and middle, are not doing for medical education, and hence for the sick and the maimed, in supplying them with as adequately qualified graduates as they can, and, may I not add, as they should.

The advance in the art of medicine, the great increase in the sum of medical knowledge, the vast increase in the number of the instrumentalities for the cure and relief of disease, whether medical, sur-

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gical, gynecological, ophthalmological, etc. etc., are such that the amount of time which was devoted by our fathers to the learning and teaching of medicine, is now ridiculously inadequate to meet the requirements of to-day. The advance in medicine demands a longer period of pupilage, certainly not less than *four years*,[1] more extended and thorough teaching, and a better quality, or higher preliminary education, before matriculation.

In the matter of reform, of higher or more advanced education by the medical colleges, it may be said that this body is powerless. Such is not my opinion. It is not, I am free to say, powerless in its ability to complain, to point to defects, and to arouse, not only the attention of the profession, to the importance of reform, in the matter of the preliminary education of students—the requirement of *four years' study*, and the attendance upon at *least* three full "regular courses of lectures," before a candidate shall be permitted to submit himself to an examination for graduation. This organization is not powerless. As a representative body, it is full of power to create, give force and impulse to the demand, by the profession, upon the medical colleges and their professors, for large and important improvements in the requirements for matriculation and of graduation. This society is quite able to create a sentiment and a demand *outside* of the profession, *directed* and *controlled*, *however*, by it, which may be made so pronounced and active that it will not down, until our medical schools, through the power inherent in their teachers and trustees, shall rise to the full dignity and importance of the great work which they have specially in hand. For us to fail to attract attention to the defects which we have named, and to remain passive or indifferent to such improvements as will secure more advanced and fuller teaching, which all observing and reflecting members of the profession know are necessary, is to call down upon ourselves censure, which can only be averted by doing our duty to the profession and the community, by earnestly demanding and working to secure the reforms in medical education which we have indicated. Agitation of reform in medical education by the various State Medical Societies, carried on with the energy and intelligence which those societies can call into action, will be vastly more efficient in securing the reforms, than all other instrumentalities combined. Let us this day commence this agitation, and pledge

[1] Since writing this Address, I have seen it stated in a medical journal that the Medical Department of Harvard College, in its Announcement for 1880–81, "has recommended a four years' course." This college is one of the four referred to as requiring the preliminary examination before matriculation.

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the society as a laborer in the great work, and, by our example, influence the State medical organizations all over the land to take part with us, and, by combination and systematic agitation, make ourselves felt where it is most necessary, that the agitation and demand for reform in medical education should be felt by the faculties and trustees of all the medical colleges of the country.

The great teacher, Professor Samuel Jackson, M.D., used to declare to his classes of the University of Pennsylvania, *no credulous* man was adapted to the study of the practice of medicine." While fully agreeing with the learned professor in the declaration quoted, we are of those who think that the antithesis of his declaration is also true, that no *incredulous man* is "adapted to the study of the practice of medicine." The credulous man is so easy of belief, that he accepts, without investigation or questioning, every new hypothesis as a grand revelation, and at once essays to put it into practical operation. The reports in medical journals, too often the transparent efforts of their authors to give to themselves a notoriety and nothing more, by the publication of wonderful cures produced by them by new modes of treatment, or by the use of a new medicine, are to the credulous practitioner important, yea, valuable revelations. He is the outspoken devotee of all medical vagaries of the day. He is the torment of apothecaries by having presented to them to compound, prescriptions for pills, mixtures, suppositories, juleps, etc., having, as one or more of their constituents, medicines, or so-called medicines, not officinal, and whose reputations are often as ephemeral as the life of the flower which blooms in the morning and dies at evening. He is at all times on the lookout for something new, whether it be a cure for a cancer or for a corn. He is in the practice of medicine as fickle, and as full of changes as a weather-vane He is, as a practitioner, "neither flesh, fish, nor red herring." He is but seldom known to prescribe old, long tried, and abundantly endorsed remedies, and when he rises to the dignity of doing so, he prescribes them in such inert doses, because almost infinitesimal, that you would be justified in the conclusion that he had been educated in a school controlled by the followers of Hahnemann, where the hypothesis is enforced that the little, nay the infinitesimal, has more power than the much, and not educated in a school where power is taught as residing in things tangible, and not in names and shadows.

Dr. Oliver W. Holmes has said: "I have known a practitioner, perhaps more than one, who was as *much* under the influence of the last article in his favorite medical journal as a milliner under the sway of the last fashion plates. The difference," continues

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the doctor, "between green and seasoned knowledge is very great, and such practitioners never hold on long enough to any knowledge to have it get seasoned." In illustration of the doctor's remarks, I beg your indulgence while I relate a little of my experience with one of the class of practitioners referred to by Prof. Holmes. About a year ago I met in consultation a practitioner of whose ability as a physician I knew but little. The patient I was invited to see with him was a young lady suffering with inflammatory rheumatism. She had been sick for two weeks, "intensely sick," to quote the doctor. After an examination of the patient the doctor and I retired for consultation. After observing to him that I regarded his diagnosis as correct, I invited him to give me a history of the treatment to which he had submitted the patient, which he did, and finished his history with the declaration that there had not been the least improvement in her condition. Upon asking him if he proposed a change of treatment, he replied that he did, that he had read in one of the domestic medical journals an article taken from a foreign medical journal, which was very strong in its endorsement of citrate of caffein as a highly valuable medicine in the treatment of acute rheumatism, given in doses of from 3 to 5 grains every two or three hours, and that he would like to submit the patient to its influence. I asked if he had ever used or personally knew of its being used with benefit in the treatment of inflammatory rheumatism, and received a negative reply. I then remarked that the case had reached too grave a condition to permit the use of other remedies than those which had a *well-established* reputation in the management of so formidable a disease. I suggested a course of treatment in which indeed there was nothing new, which was approved by the doctor. Being invited to continue in association with him, I did so, until the patient commenced to convalesce. Comments upon the proposed citrate of caffein medication, if it may be so dignified, and what might have been its results, I leave to you to determine at your leisure. Yet I cannot withhold the remark that in the instance narrated I met with, as Dr. Holmes has it, "a practitioner who was as much under the influence of the last article in his favorite medical journal as the milliner under the sway of the last fashion plates." Do you know of any such doctors?

We are having developed in the profession therapeutists, who are known as physiological therapeutists, many of whom ignore the accumulated stores of positive knowledge, which have been garnered by close observation oft repeated, by almost numberless accurate observers and recorders of the effects of medicine at the bedside, and which for want of a better name has been qualified as "empirical

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therapeutics." I am not here to denounce physiological therapeutics, but I am here to say, that, while I would accept the important *facts* which experimenters and observers in the department of physiological therapeutics have made, and invite them to continue their work, for the purpose of making whatever possible addition may be made to the list of the undoubted and entirely reliable remedies which illumine our therapeutics (developed, as I have remarked, by accurate observations at the bed-side), I would not ignore or reject facts, let them come from whatever source they may, but would gladly receive and adopt them.

It does not, however, follow that, because we may be willing to do this, we must reject and refuse to utilize facts, because they have not been developed in a certain way, or because they have been developed and made positive in another certain way. We should hold fast to those therapeutical facts which time and the almost boundless experience of the profession have pronounced good and sufficient, and upon which it has placed its unmistakable "fiat." I am tempted to quote from the address of Dr. Roberts Bartholow, Prof. of Materia Medica and General Therapeutics in the Jefferson Medical College. In the address alluded to, which was delivered to his class at the commencement of the session 1879–80, the Professor remarks:—

"Revolutions do not go backward, and they are apt to be radical in medicine. Furthermore, it is surprising to what extent fashion rules current medical opinion and modes of practice. Do the leaders in medical thought take a certain direction, their followers pursue pell-mell. This is observable now in the revolution which has taken place with respect to empiricism in therapeutics, and in certain quarters there exists a disposition to ignore all that has been accomplished by it, and to rely exclusively on the physiological method. This extreme tendency ought to be resisted in so far as there is danger of putting aside some of our most valuable acquisitions. It is far wiser to possess us of every aid which either method can offer—to accept the scientific facts which an exact physiological research can contribute, and to retain and extend that knowledge, the truth of which has been confirmed by the experience of generations of accurate observers. In fact, when we come to investigate the subject we find that the physiological method is not free from sources of fallacy, from contradictory observations, from conclusions that subsequent investigations show to be erroneous."

We cannot be too guarded in both the reception of the new developments of physiological therapeutics and in the "putting aside

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some of our most valuable acquisitions," which have come to us through "empirical therapeutics."

There are in the profession those who boastingly call themselves heroic practitioners, whatever that may mean, and still another class who rejoice in being known as conservative practitioners. Among the latter are mainly found those who are to a very positive extent skeptics in the system of empirical medicine, that system of medicine which, it may be truly declared, has grown to its present attractive grandeur and usefulness by a proper use of the facts, therapeutic and all indeed, which make up the grand *tout ensemble* of medical knowledge, collected at the bedside of the sick, in private practice, and hospital service.

There is not any national school of medicine as much given over to medical conservatism or expectant medicine, and which relies as much upon the *vis medicatrix naturæ*, as the medical school of Germany. Having a fact or more bearing to a limited extent upon the results of the practice of conservative medicine in one of the important clinical schools of that country, I present them to you for your consideration. In the *New York Medical Journal* of December, 1879, page 665, you may read as follows: "The modern treatment, *i. e.*, the conservative expectant treatment of disease, in Germany is deteriorating, and statistics are given to establish the fact that at Prof. Bamberger's clinic, of 27 cases of pneumonia, 17 died, 24 per cent. of all cases of typhoid fever died, and facial erysipelas was frequently fatal." This is not a very encouraging report. In contrast with these results of conservative medicine, I lay before you statistics which I have collected from three annual reports of a hospital in Philadelphia, where the rule of practice is not of expectant conservative medicine, but medicine pure and positive. In 1875 there were treated in the hospital referred to, of pneumonia, 13 cases, of which 3 died; in 1876, 10 cases, of which one died; in 1879, 10 cases, of which 2 died.

While I am willing to accord to nature all her merits, while I would not rob her of any of her healing power, I have a full and abiding confidence in medicine; I recognize its power, and am not willing to give to it a subordinate place to nature in the cure of disease, but regard it as *the power* to be relied upon in the arrest and cure of maladies.

A physician not remote from us, more famous because of his brilliant literary abilities than for his practical medical qualifications, has said: "If all the medicines were cast into the sea, it would be all the better for man, and all the worse for the fishes." I fear from what you and I know, judging from their practice, there

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are more Holmes than one. Some of our medical brethren delight much in the discussion of the *modus operandi* of medicine, the manner in which therapeutical agents influence the system, their vito-chemical action, etc. The discussion of the *manner* in which medicines produce their peculiar effects has always appeared to me to be a profitless discussion, as much so as the discussion of the causes operative in producing the dark spots on the sun. Why digitalis controls the heart's action, *how* it does it, how jalap acts as a cathartic, and calomel influences the hepatic secretion and modifies inflammatory action, I must say I am ignorant; yet, with all, I am acquainted with all the hypotheses, the assertions, for they amount to nothing more in regard to the manner in which medicines produce their peculiar effects upon the system. I am disposed to treat the matter of vital chemistry, as far as it has reference to the action of medicines in producing changes in the animal economy, as a somewhat entertaining scientific disquisition, as useless as entertaining. While, however, I have no confidence in this branch or domain of vital chemistry, and do not think it a matter of great importance, if of any importance at all, to know how chemically medicines produce their results in the system, yet it is necessary to know the ultimate fact that certain results may, and under general circumstances will, follow the use of medical agents, and when and how to administer them, that diseases may be controlled and the march of death retarded. I do *not* feel it important to my patients that I should know *how*, chemically, mercury controls inflammation; but it is important that I should know that it is an anti-inflammatory agent, and know when its use is indicated, and how to prescribe it. It is not essential to the well-doing of my patients that I should know by what peculiar vito-chemical action digitalis will diminish the activity of the heart's impulses and increase its power, nor why ipecacuanha will in certain doses act as an emetic, an expectorant, and diaphoretic. It is only necessary that I should know the ultimate fact that these effects can be produced by the medicines named, and that I should know how and when to administer them to produce their effects with benefit to my patients. Too much time, I fear, has been wasted, and still continues to be squandered, in searching for that which cannot be found, and which, if it could be, would not be worth the labor of the search.

I know there are skeptics in medicine, no few indeed, and regret that there are such, yet I think their doubts of the potency of medicines arise from the matter, the substance being overlooked by them in their hot chase after the shadow, also because in many instances their cherished hypotheses have been overturned by the stern reve-

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lations of facts, and their false doctrines have been wiped out by demonstration. Unfortunately for the best interests of suffering humanity, too many of us have pinned our faith to those who have built up doctrines, not upon facts which they have gathered from observations and study of disease at the bedside, but upon the reports of those who, with a very insufficient knowledge of practical medicine, have constructed captivating hypotheses upon observations, few in number, loosely made, and insufficient in their extent. As hypotheses so developed have been by the stern revelation of facts overturned, their promulgators and believers, instead of turning aside from them and gladly receiving the new revelation, the proof of their fallacy, become doubtful of the truths of medicine, regard nature as the only efficient power in the cure of disease, and declare "it would be better for man and all the worse for the fishes, if all the medicine had been cast into the sea." In keeping with this branch of our subject, let us refer to a few cases such as have occurred time and time over again in every physician's practice, and see if the evidence which they present is or is not positive that medicine is potential. We have a case of typhoid fever; the diarrhœa is exhausting, the tympanitis is positive, the tongue dry, brown, fissured; we give at short intervals small doses of blue pill, oleum terebinthinæ, acetate of lead, and adjuvants. Under the action of these medicines the tongue grows moist and becomes coated, the diarrhœa diminishes, and the tympanitis subsides, and in almost every case where we have had recourse to these medicines, when the diseased phenomena named have existed, the same good results have been produced. Shall we call this mere coincidence, the administration of the medicines and the giving way of the unfavorable condition? Certainly not: they are causes and sequences. If such be true, is it wise, is it humane, to refuse to the patient the benefit of such medication, even if nature, after a long and very doubtful struggle, might have brought the sufferer safely through his perils? To deny the potency of medicines, under the circumstances referred to, is to deny and to disregard demonstration. A patient has cardiac disease of long standing, his limbs are swollen, his abdomen is enlarged with fluid, the sounds of the heart are masked, his breathing is difficult, he cannot maintain the recumbent position, he has a tormenting cough; the diagnosis is effusion in the pericardium, ascites, and anasarca. Will you hand him over to the tender mercies of nature, and refuse to him the benefit of art? If you do, it will not be long before nature in turn will hand him over to the undertaker. Will you fold your arms and do nothing, and hope that nature will do all; or will you, having full confidence

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in medicine, summon to your aid, and to your patient's relief, hydragogue cathartics, diuretics, and digitalis, and by their action upon his bowels, kidneys, and heart, cause such free and copious pouring out of water, as in a few days to at least largely remove the effusion from the pericardium, the abdomen, and the connective tissue? As the fluid is evacuated, you day by day can measure the improvement, as expressed in the diminished cough, the unmasking of the valvular sounds of the heart, the diminished size of the abdomen, the reduced size of the limbs, and the patient's ability to take repose in the recumbent position. The effects, the positive, the demonstrative effects of medicine, are here so palpable that they cannot be doubted, much less be denied. The direct tendency of the effusions was to death. The positive effect of medicine was the arrest of this tendency, and to give to the patient an extension of life's furlough. For such, indeed, it would not have been better, "that all the medicine had been cast into the sea." Have you a lady patient suffering all the torments of debility, defective nerve force, impaired digestion, cephalalgia, disturbed uterine functions, and a host of other ills the offspring of anæmia? You may direct your patient to expose herself to the sunlight, to take passive exercise by short walks and carriage rides, to seek the sea-side and the mountain top, to use meats, drink milk, and eat all such food as her enfeebled digestive apparatus may not rebel against. In short, you may do all and everything else, than have your patients to use iron, and in the vast majority of your cases of anæmia, you will find that they will go from bad to worse. Nature unassisted in the majority of instances will not accomplish restoration. By a persevering use of iron and other indicated medical adjuvants, you have over and over again seen your anæmic patients steadily advance to health, which finds its delightful expression in the vigor and elasticity of step, the round full voice, increased powers of endurance, vigorous digestion, "rosy cheeks and coral lips," thus demonstrating at once the power and utility of medicine, and endorsing a practice sanctified by time and verified by the daily practice of those who, disregarding the vagaries attempted to be engrafted upon medicine, hold fast to that which is good and useful, rejecting that which has only novelty and mystery to endorse it. Have you not cured in twenty-four hours with sulphate of quinia an intermittent fever of many days' standing? Apropos to this, I will hurriedly relate to you some facts which came within my knowledge of a case of intermittent fever which was treated by one of nature's journeymen, a homœopath, and under his treatment the patient barely escaped sinking into the grave, and would have done so if medi-

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cine had not been invoked to the rescue. A neighbor of mine was attacked with intermittent fever of the tertian form, not by any means severe. He was able to attend to his business, that of a grocer, except during the paroxysm, which continued for only a few hours. He sought a homœopath. Under his treatment, or rather no treatment, he grew worse, the paroxysms became longer and more severe, and passed from a tertian to a quotidian, and ultimately to a double quotidian. The poor sick deluded man was reduced to the last extremity, and the prospect was, that, nature having failed to relieve him, death would shortly do the work. Satisfied that homœopathy had proved a failure, and that he was fast breaking up, he was influenced by a friend to abandon homœopathy and have recourse to medicine. His homœopathic attendant was a graduate of a regular college, and knew something of medicine. Being informed by his patient that he would not be treated longer by the "new-school system," and that he desired to be treated regularly, the homœopath determined to operate in a better field, and for the nonce to abandon sham and semblance of doing, and to indulge in reality and power. He prescribed 24 grains of sulphate of quinia, to be made into 12 pills, one pill to be taken every two hours. The 24 grains of sulphate of quinia killed as dead as Saul—not the patient, but his intermittent fever, and he lived long, to tell of the worse than inefficiency of nature, and her journeyman, to cure disease.

I have an abiding and unqualified confidence in medicine, and am more than gratified that by your kindness I have here and now the opportunity to declare that confidence. Educated in a medical school where medicine was taught with clearness, force, and elegance, and illustrated by long and diversified clinics, my practice has been a positive one, and its results have not dissatisfied me. From it, I have drawn facts, illustrations, corroboration, and arguments which establish in my mind, beyond the shadow of a doubt, the fact of the controlling and high curative powers of medicine. I prescribe, not infinitestinal doses, nor those which approximate to them, but decided positive doses, and am gratified that I have, if you choose, the courage to do so. Not being moved or influenced by the vagaries of the times, as they for a season attach themselves as morbid growths to our glorious time-honored system of medicine, I reject its poetry and hold fast to its prose. I am, in a word, as you have I doubt not already determined, a medicine man.

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TREASURER'S REPORT.

THE undersigned, Treasurer of the Medical Society of the State of Pennsylvania, begs leave to submit the following annual report:—

The balance on hand May 22, 1879, was one thousand and sixty-seven dollars and twenty cents. There was received during the year from all sources, two thousand one hundred and eleven dollars and thirty-six cents; during the same time the expenses amounted to one thousand eight hundred and six dollars and eighty-nine cents, leaving a balance on hand of one thousand three hundred and seventy-one dollars and sixty-seven cents.

The annexed statement of receipts and expenditures will show in detail the sources from which the receipts were obtained and the objects to which the expenditures have been applied.

All of which is respectfully submitted.

BENJAMIN LEE,
Treasurer Med. Soc. State of Penna.

LIBRARY ASSOCIATION

The following County Societies are reported as in arrears:—

Beaver County Medical Society, dues of 1879	$19 20
Bradford County Medical Society, dues of 1879	9 60
Lawrence County Medical Society, dues of 1878	8 75
Northumberland County Medical Society, dues of 1878	8 75
Total amount of delinquency	$46 30

ALTOONA, May 20, 1880.

STATEMENT OF RECEIPTS AND EXPENDITURES.

RECEIPTS.

From balance on hand May 22, 1879		$1067 20
" 1 County Society for dues of 1877	$4 50	
" 8 County Societies for dues of 1878	145 00	
" 42 County Societies for dues of 1879	1954 60	
" sale of Transactions of 1875	1 30	
" sale of Transactions of 1879	4 80	
" interest on deposit in Fidelity Trust and Safe Deposit Company	1 16	
		2111 36
		$3178 56

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EXPENDITURES.

For expenses of Committee on Medical Legislation, Dr. R. L. Sibbett, Chairman		$15 00	
" expenses of Committee of Arrangements at Chester, Dr. W. B. Ulrich, Chairman		79 92	
" telegrams to Legislature		3 16	
" expenses of Committee on Female Superintendents for Insane Asylums, Dr. Hiram Corson, Chairman		15 00	
" for printing and distributing Transactions of 1879	$1333 84		
" printing bill-heads, memorials, etc.—bill of T. K. Collins	37 57		
		1371 41	
" binding two volumes of Transactions of 1878–1879		1 80	
" travelling expenses of Treasurer		2 80	
" office expenses of Treasurer		1 80	
" salary of Secretary		300 00	
" travelling and office expenses of Secretary		16 00	
Balance due the Society May 20, 1880		1371 67	
			$3178 56

ALTOONA, May 20, 1880.

To the Medical Society of the State of Pennsylvania:—

The Committee appointed to audit the account of your Treasurer, Benjamin Lee, respectfully report that they have examined his account and his vouchers, and find it correct, leaving a balance due the Society in his hands of $1371 67.

TRAILL GREEN,
WM. W. DALE,
W. H. DALY.

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REPORT ON MEDICAL LEGISLATION.

By R. LOWRY SIBBET, M.D.,
CARLISLE, PA.

The Committee on Medical Legislation beg leave to report that the bill pending in the legislature at the time of our last meeting was defeated on final reading in the House of Representatives, after it had passed the Senate without opposition. This bill was intended to take the place of section three of the Act of 1877, which is imperfect. It required registration of all practitioners of medicine by the prothonotaries of the several counties of the State, as the means of obtaining important information which cannot be secured in any other way. It has been stated in former reports and in memorials that registration, uniform and thorough, of physicians, druggists, and dentists, is practised in all European countries; and that it is the only solid basis upon which the medical profession can rest in any country. It has also been stated that registration is practised by the legal profession in all countries as the essential feature of the means made use of to secure competency in our courts of justice. And it is still the opinion of your committee that the registration of medical practitioners, which has been commenced in our State, should be continued under the imperfect section referred to, and in accordance with the forms adopted by this Society, until further legislation can be obtained. In the mean time it is proposed to point out some of the obstacles in the way of medical legislation, and to indicate the means which it is our privilege to use under a republican form of government, and which we must use, if we would secure for our profession a higher standard.

In a more centralized form of government in which the institutions of the country are given to the people by the higher classes, the regulation of the practice of medicine is very simple. A certain number of boards of examiners are constituted by law to examine all candidates for the degree of Doctor of Medicine, and no one is permitted to practise who has not obtained this degree. These boards of examiners, as they exist in foreign countries, are, of

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course, connected with the departments of higher education, but they are in no way interested in the number of candidates whom they examine or recommend for degrees.

In the United States it is altogether different. The less intelligent classes of our people are virtually the lawmakers, and we must accept what they give us. Our government is a republic of independent States, each of which claims absolute control over its own institutions, including medical schools. The Federal government cannot limit their number, or interpose restraints of any kind, and just here we find the chief obstacle in the way of efficient legislation on this subject. Concert of action between the States is impossible. As a result, rival institutions of low grade spring up everywhere. The courses of study are abbreviated; degrees are prostituted; diplomas become articles of merchandise.

The degree of Bachelor of Arts is conferred by our higher literary institutions after six years of faithful study, but it may also be obtained from other institutions after three years of study. The degree of Doctor of Medicine may be obtained on almost any terms. These degrees have therefore no uniform or fixed value in our country; and the latter has frequently been conferred upon ignorant pretenders.

What effect this policy, indorsed again and again by our State legislatures, may have upon our literary institutions and upon the other professions, it is not for us to predict; but it is certain, in the near future, to bring disgrace upon our medical schools and upon our profession, if it has not done so already. We have in the United States three times as many medical schools as Germany, four times as many as Great Britain, and ten times as many as France. New York has 13 or 14, Ohio has 12, Missouri has 8, Pennsylvania has 7. These institutions, eighty-five in all, are of course chartered by the legislatures of the several States in which they are located; and some of them, as is well known, are exceeding pretentious and corrupt. They are not unfrequently called universities, even when their doors are closed eight months in the year. In a few instances they have well deserved the opprobrious epithets applied to them by the press, such as "diploma mill" and "doctor factory." All this has grown out of the fact that our government is a republic of independent States, without power to limit the number of medical schools or to restrict them in the exercise of their proper functions.

But there is another obstacle in the way of efficient legislation to which we invite the attention of the profession. We refer to the existence of the *sects* in medicine. These are an American product.

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They have grown up in our midst during the last forty years. Popular government has given them a legal form and shape. In no other country has there ever been a chartered medical school calling itself *homœopathic*, *eclectic*, *hydropathic*, *vitopathic*, or *hygeio-therapeutic*. The seed of sectarian medicine was first sown in Pennsylvania, Massachusetts, and New York, and to-day we are reaping a harvest of bitter fruit. There are at present twenty-one or twenty-two such institutions in our country, and we know that most of them are engaged in the diploma traffic. A few weeks' attendance upon what are dignified as medical lectures in rented buildings, or it may be a few dollars sent in an envelope to the dean of the faculty, and the candidate has conferred upon him the degree of doctor of medicine. It is well known that the agents of these institutions have canvassed our country from one end of it to the other, and that many persons are in the possession of diplomas who have no proper claim to them. The members of this Society know best; but your Committee have reason to suspect that there are persons in every county in Pennsylvania who have obtained the degree of Doctor of Medicine in this irregular manner. These agents have even ventured abroad, and are now supplying the demand for American degrees in foreign countries. In Europe, in Asia, in Australia, in the Canadian provinces, and in the South American States these diplomas are found by our ministers and consuls. In no department of industry have we so far outstripped other nations as in the manufacture and sale of medical diplomas. And although in most cases they are not valuable to the dupes who have purchased them, the disgrace attaches itself to our country and to our profession; and it is our duty, as a Society, to wash our hands clean, and to recommend such legislation as will save, at least, the commonwealth of Pennsylvania from further disgrace.

In this connection, it may be stated that the medical schools in foreign countries, as well as the greater part of the profession in the United States, are not in any proper sense of the term *sectarian*, either in their teaching or in their practice. There has never been, in any country, a chartered medical school calling itself *allopathic*, and it is not likely there ever will be. This term—whatever it may mean—is ignored by all to whom it is usually applied, as unscientific, and, like the other high-sounding adjectives just given, is calculated to bewilder and deceive the people. It is the invention of theorists, who insist that every practitioner shall have a name, whether he is willing to recognize it or not. Rational medicine has no need for such bombastic titles to commend it to the favor of the

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people. Whilst it allows the greatest liberty in the discussion of theories, it at the same time permits and urges the use of all means that experience has shown to be useful in the treatment of diseases

From these remarks, forced upon us by the circumstances which surround us, it becomes apparent that sectarian medicine has created an additional obstacle in the way of efficient legislation in the United States which does not exist in other countries, and which is not easily removed or overcome. The course of action which your Committee recommend will be considered further on.

We come now to a subject which we can no longer keep in abeyance, because it touches upon our honor as citizens of a great commonwealth, and as members of a noble profession. Thus far we have kept silent as a society, lest we should appear to become the persecutors of institutions in our midst, which are known to be only *whited* sepulchres. And even now we prefer to use the arguments of others outside the profession, and to give to them the credit of bringing to light what many good people are unwilling to believe can exist.

The following is extracted from the Legislative Journal of the State.

" Mr. Randall, from the special committee appointed in pursuance of a joint resolution of the Senate and House of Representatives to investigate the facts concerning the alleged corrupt issuing of medical diplomas by any medical college existing under the laws of this State, made the following report, which was read and adopted:—

" The undersigned members of the committee appointed pursuant to a resolution of January 24, 1872, to investigate the facts concerning the alleged corrupt issuing of ' medical diplomas' by any medical college existing under the laws of this State, beg leave to submit the following report:—

" Your committee met on the 31st day of January, A. D. 1872, and organized by electing A. M. Martin clerk; and being profoundly impressed with the importance of the subject committed to their charge, have prosecuted what they believe to be a thorough and searching, as well as a fair and impartial investigation of the charges referred to.

" The sessions of your committee have all been held in public in the cities of Philadelphia and Harrisburg: the proceedings have all been published, and the faculty and trustees of all the institutions have had full liberty to furnish any evidence, either exonerating themselves, or implicating others; thus, as your committee believe,

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adopting every precaution to protect the innocent, and neglecting no proper means to expose the guilty.

"The institutions in regard to which inquiry has been made are, the University of Pennsylvania, the Jefferson Medical College, the Philadelphia University of Medicine and Surgery, and the Eclectic College of Medicine, all of which are located in the city of Philadelphia.

"In regard to the two first named institutions, the University of Pennsylvania and the Jefferson Medical College, your committee feel bound to report that a full and careful inquiry has developed no cause for suspicion that either the trustees or faculty, or any member thereof, have in any way been concerned in the unlawful issue of medical diplomas, or the improper issue of what are termed 'Honorary Degrees.' On the contrary, the concurrent and uncontradicted testimony shows conclusively that persons connected with these institutions have, from the commencement of this nefarious traffic in diplomas, used all proper means both to expose and prevent the same, thus fully justifying the high estimate placed upon these institutions, and affording new proof of their just title to public confidence and esteem.

"The other institutions, which at present are known by the names of the Eclectic Medical College and the Philadelphia University of Medicine and Surgery, seem to owe their corporate existence to some very complicated and mysterious legislation. The legislative authority under which they seem to act is, first the Act of February 25, 1850, by which the 'Eclectic College' was incorporated, and the Act of February 26, 1853, by which the American College of Medicine in Pennsylvania was incorporated. By the act of February 26, 1853, the word 'eclectic' was stricken out of the act of February 25, 1850, the original act. By the act of February 15, 1860, the American College of Medicine in Pennsylvania, and the Eclectic College of Philadelphia, were hereafter to be known by the title of the Eclectic College.

"By the act of 1867, the American University of Philadelphia was incorporated, and by the terms of its charter has no power to confer medical degrees, except upon persons who have passed through the ordinary clinical course of study. By an act approved March 21, 1865, we have the first appearance of the Philadelphia University of Medicine and Surgery, and this appears to arise from a merger of the Eclectic Medical College and the American College of Medicine.

"An examination of many witnesses has convinced your committee that the Philadelphia University of Medicine and Surgery,

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under the management of Dr. William Payne, and the Eclectic Medical College, under the management of Dr. John Buchanan, have for a long time openly engaged in the sale of diplomas to persons who had not attended even a practical collegiate course, and who in many instances were without any medical or scientific attainments whatever.

"It is in evidence that Dr. Payne made an agreement for the sale of diplomas, for the consideration of two hundred dollars, conferring the degrees of M.D. and LL.D. upon a person of whom he knew nothing except the name, and that in pursuance of this arrangement said diplomas were regularly made out and signed. The person named in this instance is said to have been an infant but two years old. It was also proved that Dr. Payne entered into an agreement with other parties to furnish diplomas for sale. In many instances there was positive proof that he had issued the diplomas of the University of Medicine and Surgery, for a consideration, to persons who had never attended any course of instruction, and to others who had only attended a few lectures in the course, and almost invariably without requiring an examination of the person so graduated or the writing of a thesis. In a number of cases witnesses testify to having received meritorious degrees in medicine without study, examination, or even payment. An examination of the books of the Philadelphia University of Medicine and Surgery disclosed the fact that many *honorary degrees* from that institution were disposed of for money, the entries stating specifically the amounts paid for such degrees and the names of the persons to whom they were sold.

"The testimony concerning the illicit traffic in diplomas by the Eclectic College of Medicine, under the management of Dr. John Buchanan, developed some most astounding facts connected with this institution. It appears to be notorious that the sale of diplomas by this college was carried on openly and systematically. Diplomas from this college, in regular form and signed by the faculty, have been granted to women who could not even tell the location of the college, and there is abundant evidence of the sale of degrees to persons who never attended any of the lectures of the course or received any medical instruction whatever. One of the faculty testified before the committee that during the time he filled an important chair in this college he visited a distant part of the State for the purpose of ascertaining who among the practising physicians of that locality were without diplomas, with the intention of selling them degrees for whatever sum could be obtained.

"Your committee feel bound to report that this illicit and dis-

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graceful traffic in diplomas by the two colleges above named has brought the medical profession of the State into disrepute, and has done great injury to the character and standing of the University of Pennsylvania and the Jefferson Medical College. Several members of the faculty of these institutions testified that they are constantly in receipt of letters from distant parts of the country and from England, inquiring upon what terms and conditions diplomas could be purchased, and a number of these letters were produced before your committee, copies of which will be found among the notes of testimony herewith submitted. It seems to have been the design of those engaged in the nefarious business to create the impression that they really represented the University of Pennsylvania at Philadelphia, and hence their endeavors by frequent legislation to obtain such names as would be likely to be mistaken for it. It is certain from the testimony adduced that both the Eclectic College and the Philadelphia University of Medicine and Surgery, sold many scholarships to persons who supposed they were purchasing the scholarships of the University of Pennsylvania, and that in no instance was the error corrected when the student discovered the mistake.

"In view therefore of the clearly established fact that both the Eclectic College of Medicine and the Philadelphia University of Medicine and Surgery have abused the trust confided in them by the Legislature, by their several acts of incorporation, by selling their degrees to persons who had not attended the regular course of instruction, or were in any manner entitled to hold diplomas from a chartered college, and that their existence as incorporated medical institutions is productive of great disgrace to the medical profession, therefore your committee urgently recommend the passage of a law repealing all former laws incorporating said institutions.

"All of which is respectfully submitted.

WM. M. RANDALL,
J. M. WEAKLEY,
B. B. STRANG,
D. A. NAGLE,
M. S. HUMPHREYS,
D. W. CRAWFORD,
E. BILLINGSFELT."

It is only necessary for your committee to state that bills were introduced, passed by the Legislature and approved by the governor, repealing the several acts by which these institutions were incorporated; but an appeal was made to the supreme court, and it was

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decided that an act of incorporation can only be annulled by judicial procedure.

We next present an abstract from a letter written by Hon. Andrew D. White, our minister at Berlin, to Secretary Evarts of the State Department at Washington, and forwarded to Mayor Stokley of Philadelphia. It is only one of numerous complaints that have reached us through our ministers and consuls relating to the chartered medical schools of Pennsylvania, and we think it should be given to the profession as part of our report (see *Philadelphia Record*, Mar. 31, 1880). It reads as follows:—

"Some weeks since a Mr. Pappenheim brought me a diploma, engrossed on parchment in very handsome style, and issued nominally by 'The American University of Philadelphia' (of 514 Pine Street , conferring the degree of Doctor of Medicine upon one Christopher Schnetz, living, as I understand it, at Leipzig. It would appear that the diploma was offered to Schnetz upon the condition that he would pay a sum of money for it. It bears the signature of a number of persons claiming to be professors in the aforesaid university, at the head of them being the signature of John Buchanan, M. D. Schnetz desired the Legation to give him a declaration of its genuineness and value, which I refused to do. One peculiar feature of the diploma was that, although evidently entirely new and recently issued, it was dated 1872.

"About ten days ago another and more serious case was brought to my notice. The judicial authorities at Prenzlau forwarded a copy (which I inclose) of a diploma issued by the same alleged institution to Paul Christopf Erdman Volland, and signed by the faculty, at the head of which appears the same name John Buchanan, M. D. The authorities at Prenzlau asked the Legation regarding the genuineness of the diploma and standing of the institution, it being with them a question whether Volland could be allowed to practise his profession under such a diploma.

"After looking through the correspondence on record in this legation, and seeking in vain for the name of the institution in the list of colleges and universities published by the Bureau of Education in the Department of the Interior at Washington, my answer was unfavorable to Volland's claim.

"You will observe among the papers accompanying the diploma of Volland something much more serious than the diploma itself, and that is the authentication of it by Philip A. Cregor, or Gregar, notary public of Philadelphia; and I bring this matter especially to the notice of the Department, hoping that something may be

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done to prevent officials in Pennsylvania lending themselves to what is undoubtedly a fraud, whether under the forms of law or not.

"That such cases as these have brought disgrace upon the American system of advanced education, and upon the American name in general, is certain. This has recently been revealed to me incidentally in a curious way: In a very successful play now running at the Royal Theatre in this city, a play written strangely enough by a judge of one of the higher tribunals in the Empire, one of the characters, in casting a reflection upon another who is dignified with the title of Doctor, declares a belief that the latter had simply bought his degree in America; and in a recent novel of a popular author here, the scoundrel of the book, having escaped justice in Germany, goes to America, and is at last advices very comfortably settled and practising medicine with a diploma which he had bought for money.

"All this, of course, is of no special significance in this case, save that it shows that the fair name of our country has been and can be injured in the minds of a large number of people by such contemptible transactions as those herein referred to."

We come next to consider very briefly the means which it is our privilege and duty to use for the elevation of our profession and for the protection of the people.

The first of these is *legislation, direct and unequivocal.* It is plain from what has been stated that the profession in Pennsylvania is in much the same situation as it is in France, or Great Britain, or any other independent government, with this exception, that we have in our midst *sectarian* medicine to make legislation more difficult. We can, however, even in the peculiar circumstances in which we are placed, consider the profession as composed of two classes of practitioners.

1st. Those who have obtained the degree of Doctor of Medicine from institutions in our own State; and

2d. Those who propose to settle in our midst, pretending to have obtained this degree from institutions in neighboring States or foreign countries.

This division of the subject is simple and natural. It grows out of the independence of the State. It implies the right which we have to protect ourselves. In all European countries, legislation is based on this principle, and we cannot do better than adopt it. Our first duty is therefore to establish a standard of qualifications in the profession, and afterwards to protect ourselves from imposition by

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those who come from other States or countries, with insufficient attainments or with bogus diplomas.

It will be difficult to conceive of a standard of qualifications which would be creditable to our State, without an Act of Assembly, requiring those who matriculate in our medical schools to have passed through certain courses of preliminary study. In the Canadian provinces the matriculate is required to have an academic degree, or to submit to an examination in the following branches of study, namely, English Language (Grammar and Composition), Arithmetic, Algebra, Geometry, and Latin as far as the Orations of Cicero; and in one of the following studies, namely, Greek, French, German, or Natural Philosophy. In this particular we cannot afford to be behind our neighbors. In the Harvard Medical School, and in the University of Michigan, the equivalent of this has been adopted. In most of the counties of our State, if not in all of them, the student of law is required to pass a preliminary examination before he is allowed to place himself under the care of a preceptor, provided he has not obtained an academic degree; and the same examination or degree might be required of those who desire to enter upon the study of medicine; and to escape the prejudices arising out of the *sects* in our profession, the examination might be conducted by the same committee of legal gentlemen.

The registration of all practitioners of medicine has been referred to; and in former reports we have advocated it, as the foundation of history for our profession. This view of the subject has been presented in memorials, before our legislature, but without obtaining the full benefit of an efficient law. We now ask you to consider it as a means, which has long been used in other countries, to prevent imposition and fraud. Our profession, our people, as well as our respectable medical schools, need protection. We ought to have a standard; but how shall the profession or the people know that the practitioner who comes from a neighboring State has the qualifications to practise medicine? How shall any one know that the practitioner who comes from a foreign country is not a pretender? A stranger merely suspected cannot be arrested with impunity, or required in a court of justice to give evidence against himself. The burden of proof rests upon the commonwealth. But the individual who proposes to practise medicine may be required in the presence of the prothonotary of the county to give his name, his native country, the institution that conferred upon him the degree of Doctor of Medicine, and the year in which it was conferred. All this may be required, under oath or affirmation, not only as the basis of

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history for the profession, but as an important means to prevent imposition and fraud.

Intimately connected with registration is the organization of a Board of Examiners. It is right to have a standard; it is also right to require registration; but there are some things which neither of these can secure to the profession or to the people. How shall we know that the stranger who comes into our midst has not bought his degree for money? or has not erased the name of a deceased relative from an old diploma and inserted his own? Medical institutions are numerous; degrees are cheap; diplomas are sometimes counterfeited. An itinerant, several years ago, was known to exhibit on the corners of the streets and wherever he went three diplomas from as many medical schools in the United States. Against such abuses how shall our profession protect itself? Experience has shown that it can only be done by efficient acts of legislation, faithfully executed. As in other independent States, a Board of Examiners has become a necessity for Pennsylvania. A State Board of Health, as in Illinois, might be the proper depository of such power, composed in part, as it should be, of individuals representing other professions and occupations.

But there is another means for the elevation of the profession which your committee desire to present for consideration, namely, *the judicious use of the press.* This we believe has become a necessity in the United States. Congress can do very little for the profession, except to exclude *sectarian* medicine from the army and the navy; and the legislatures of the States left to themselves are not likely to rise to an intelligent appreciation of the subject. Indeed, it would appear, from the report of the investigating committee which we have just read, that the Legislature of Pennsylvania by frequently granting charters to uneducated and irresponsible parties for the purpose of founding institutions of learning—pretentious universities and colleges—has brought disgrace upon our commonwealth and upon our profession. How to correct an evil of this kind, which touches upon the prejudices of the people at so many points; and how to prevent its recurrence in the future, though the courts confer now the charters in Pennsylvania, are questions that belong to this Society, more perhaps than to any other association, to consider. There may be some difference of opinion in the profession, but your committee are unable to discover any better remedy than the judicious use of the press. The people must be educated; but who will engage in a work of this kind unless the profession volunteer? and how can it be done except by the use of the press?

The importance of thorough preparation for professional work

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should be advocated not only in memorials sent up to our legislature and in reports of committees, but in frequent contributions to our leading magazines and newspapers in our State. The duty of supporting medical institutions of irreproachable character should be clearly stated. Rational medicine should be taught, as opposed to every species of deception and fraud. Sanitary science should be proclaimed on the housetop, that the annual mortality of the people might be reduced to a minimum. The value of statistics should be explained in every community, including especially the registration of births and deaths. And lastly efficient legislation should be advocated. The people should be informed that every honest practitioner of medicine desires to be placed under the protection of law, and to be governed by it; that the charlatan and the abortionist alone protest against the restraints of wholesome legislation.

In concluding this report, your committee desire to speak encouragingly of the future. The Act of 1877 has already produced good results. The *tramp doctor* does not make his appearance so frequently. The non-graduate engages in practice at the risk of prosecution and a fine of two hundred dollars; and the profession and the people are beginning to understand the importance of the subject.

All of which is respectfully submitted.

TRAILL GREEN,
JOHN L. ATLEE,
BENJ. LEE,
J. L. STEWART,
C. A. RAHTER,
R. L. SIBBET.

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CLINICAL OBSERVATIONS ON THE RADICAL TREATMENT OF FIBROID TUMORS OF THE WOMB.

By WILLIAM GOODELL, M.D.

Very fortunately fibroid tumors invade the womb usually at a time of life so near the menopause, as to give the woman a chance of tiding over the perils of the few intervening years of ovarian activity. The climacteric once reached, these growths generally grow smaller, and many even disappear. More frequently they simply do not increase in size.

When, however, these growths begin at an early period of menstrual life—as they occasionally do in white women, and very frequently in colored women—their treatment often becomes one of the most perplexing problems of gynecology.

There is no question of the occasional benefit derived from the persistent use of ergot, which, by constringing the uterine walls, cuts off the blood-supply of the fibroid. But, while I have repeatedly seen the tumor grow much smaller under its use, I have also seen the remedy do more harm than good. Ergot is best administered hypodermically, and preferably in the sub-umbilical region of the abdomen, where it gives least pain, and where its skin-stains are best concealed. Bonjean's purified extract of ergot, in the proportion of fifty grains dissolved in three hundred minims of distilled water, is for this purpose a very trustworthy preparation. One or two hypodermic syringefuls is the dose, which should for several weeks, or even months, be deeply injected once every day. One of my most successful cases from the use of ergot was, however, one in which the remedy was given by the mouth. The history is as follows:—

A year ago I was called to Boston to see a well-blanched lady of forty odd, who was bleeding most desperately from a fibroid tumor of the womb. It reached above the navel, and was fully as large as the adult head. The sound gave a measurement of 4.5 inches. A dilatation of the cervical canal by tents, introduced the day before by my friend, Dr. J. R. Chadwick, revealed an interstitial fibroid

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lying in the anterior wall, and bulging so much into the uterine cavity as to tempt me to incise its capsule. But this was not done, as the lady was averse to any surgical interference. Our patient, being a very timid woman, shrank even from hypodermic injections, so we decided to try, by the mouth, a combination of ergot and ammonium chloride. She daily took from twenty to forty drops of the former, and ten grains of the latter. After eleven months of this treatment she came to see me in last March, and I was astonished at her improved appearance. Her hemorrhages had wholly ceased, and so reduced in size was the fibroid that, to discover it, careful examination was needed. I forget now the uterine measurement, but I think it was slightly above the normal.

Yet, on the other hand, ergot, however administered, will occasionally not only do no good, but it will greatly increase the hemorrhages—especially when the tumor lies under the mucous coat of the womb and projects into its cavity. Then again, there are peculiar idiosyncrasies which cannot bear ergot in any form or in any dose. Such persons are either greatly nauseated by its use, or they complain of intolerable headache, and the remedy must be withheld. Further, the use of ergot is not wholly without danger. Through the squeezing which the tumor gets from the ergotic contractions of the uterine walls, necrosis may take place, and this, while curative, is liable to cause blood-poisoning through absorption of putrilage. Headache, severe uterine tormina, and occasionally a spurious hectic fever often attend the persistent use of this drug. Twice have I met with a metro-peritonitis set up by the violent contractions of a womb made vulnerable by the presence of a growth in its wall. In one of these cases, that of a multiple fibroid, the issue was fatal. Despite these drawbacks, however, ergot, especially when combined with ammonium chloride, is so efficient an agent in at least mitigating the more exacting symptoms arising from a uterine fibroid, that its use should always precede every other treatment.

But supposing that ergot, together with its stanch ally, ammonium chloride, has been tried and found wanting; can we remove the tumor in any other way? This question brings me to the consideration of the radical, or surgical, treatment of these growths, to which my paper has more especial reference, and of which I wish to give my personal experience.

Whenever the growth so projects into the uterine cavity as to be seizable, its enucleation by avulsion should always be first tried. Having now performed this operation fourteen times, I can speak in positive terms of its value. In every case the operation was by no means easy, and in two cases very tedious—the tumor being re-

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moved piecemeal. In each case the tumor was wholly taken away, and all recovered but one, a patient of Dr. T. J. Yarrow's. The lady in this case, being greatly weakened by her previous hemorrhages, died suddenly on the sixteenth day from heart-clot. An autopsy revealed the cause of death, and also that the tumor had been wholly removed.

Since my own method of performing this operation is a development, growing out of considerable experience, I shall not apologize for giving it: First, seize the tumor with a strong fenestrated polypus-forceps, or with a volsella forceps whenever the growth is too smooth and too glib to be securely held by the former instrument. I prefer the fenestrated forceps, because, being without teeth, it is not only safer than the volsella, but it does not have to be opened so widely, and, therefore, needs less room. The tumor being firmly held, the loop of a wire écraseur is slipped over the handle of the forceps, and then bent backward toward the operator, so that the beak of the écraseur shall first enter the uterine cavity. When the beak touches the fundus of the womb, the wire is coaxed up beyond the claws of the forceps, and as much higher up as possible. The slack of the wire is next drawn in, and its free end secured to one of the cross-bars of the écraseur, so that a half-crushing and a half-cutting movement shall be secured. The mucous coat alone is now cut through as flush with the uterine wall as possible. The fibroid is then wrenched from its bed, by traction and by a twisting movement made both with the écraseur and the forceps, while firm suprapubic pressure is kept up by the hands of an assistant Sometimes the seized portion will break off. Then the portion left behind must be caught, noosed, and treated, if possible, in precisely the same manner.

Twice have I been foiled in trying to remove the whole tumor in this way. In these cases the projecting portion of the fibroid was shaved off flush with the wall of the womb. But the portion left behind was in a few days so pushed out, or enucleated, by the uterine contractions as to enable me to remove it by a second operation. In one of these cases I was so completely deceived that I shall narrate it as a lesson to others.

A lady aged thirty-four, and the mother of two children, had for the past four years lost much blood at her monthlies. For this she was ineffectually treated by a number of empirics. Finally she called in Dr. R. Armstrong, of Lock Haven, who at once discovered a fibroid tumor of the womb, and last month brought her to me. The cervix was not only not effaced, but it was unusually long; yet its canal was open enough to admit the finger. A tumor, the

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lower portion of which could be circumscribed, filled up the uterine cavity. Crowding a large fagot of sponge- and laminaria-tents into the canal, we proceeded on the next day (April 29th) to remove it. With the additional help of Dr. W. L. Taylor, the growth was seized by a polypus forceps, and, with much difficulty, noosed by the loop of the wire écraseur. When the wire was screwed home, it was found that only a portion of the tumor had been cut off. The supposed remaining piece having in the same manner been seized and removed, a cup-shaped cavity was left in the uterine wall, which I mistook for the bed of the tumor. The abdominal wall was so laden with fat that the womb could not be well defined. Six days later, uterine pains setting in, I made an examination, and found the womb spontaneously enucleating into its cavity a fragment which, from being interstitial, and therefore embedded, had been overlooked. Being wrenched out of its bed by traction and by twisting, it was found to be so bulky that I had to slit the cervix before it could be withdrawn from the uterine cavity. It proved to be much the larger portion of the tumor, the other two fragments being, so to speak, merely its sprout. These three fragments weighed nine ounces. The lady's convalescence was somewhat retarded by an inflammatory deposit in the broad ligament, but she is now doing well, and left for home the day before yesterday.

In interstitial fibroids, or in very large submucous ones, which merely bulge into the uterine cavity, and do not project enough to be seized, the rule should be to dislodge them from their bed by enucleation, and remove them, if possible, at one sitting. To accomplish this difficult operation two conditions are indispensable: (*a*) The tumor must be within operative reach; (*b*) The os uteri must be sufficiently dilated for the needful manipulation. In illustration of this mode of dealing with this class of fibroid tumors, I shall give the following examples:—

Case I.—A multipara, aged forty, began, about four years before I saw her, to lose a great deal of blood at her monthly periods. Later her losses of blood were at very short intervals, but it was only four months before the operation that she discovered an abdominal tumor. She was sent to me in March, 1879, by Dr. J. T. Walker, who found her lying in a garret, and bleeding most desperately, the hemorrhages having lasted without cessation for several weeks. Upon examination, I found what this rough diagram is intended to represent—a fibroid occupying the whole posterior wall, all of the fundus, and most of the anterior wall of the womb. Although the womb reached up to the umbilicus, its cavity was almost wholly obliterated by the bulging in of its submucous wall.

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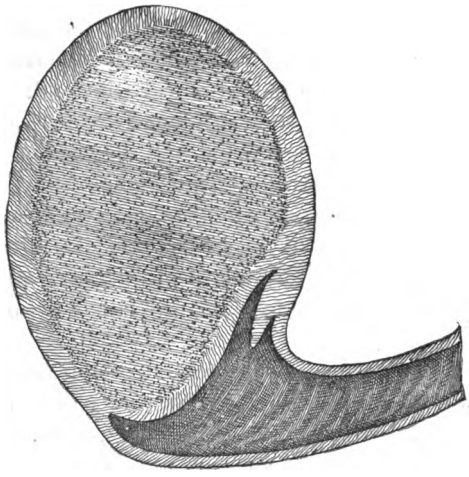
A portion of the growth occupying the posterior portion of the cervix projected slightly into the vagina, and had dilated the os sufficiently for operative measures. It was a typical interstitial fibroid, covered everywhere with uterine tissue, and with its projecting end involving the posterior lip of the cervix.



Interstitial fibroid before its removal by enucleation.

The os being dilated sufficiently for operative measures, I determined to enucleate the growth. After incising, with Adams's subcutaneous saw, the capsule, which was as thick as the rind of a large orange, I introduced my index finger into the opening, and, as far as I could reach, broke up the vascular and cellular attachments to the uterine walls. The denuded portion of the tumor was next seized by a strong pair of volsella forceps. While Dr. B. F. Baer, and Dr. M. Salin, of Stockholm, Sweden, made firm traction, I broke up those adhesions that came within reach of my finger, and severed those higher up with Thomas's spoon-saw. Yet, although the tumor came down a good deal, and two of us were obliged to make traction on as many volsellæ, it could not be dislodged. This was owing to the fact that the upper capsular attachments were not reachable over the equator of the spherical tumor, and we were making traction in their axes, and not across their grain, as was the case with the lower ones. Foreseeing this difficulty, I had brought an obstetric crotchet with me. This was passed up into the mural cavity, and hooked into the highest free portion of the tumor, which was then, with comparative ease, rolled out, or pried out, of its bed. It weighed twenty ounces, and was removed from

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within the wall of the womb, neither my fingers nor any of the instruments having ever entered the cavity proper of the womb. The loss of blood during the operation was but slight, the hemorrhage being greatest while the incision into the capsule was being made. To check the oozing that followed the removal of the tumor, a solution of iron subsulphate (one part of Monsel's solution to three of water) was injected into the mural cavity. She rapidly got well with no further treatment than quinia by the mouth and vaginal injections of a two per cent. solution of carbolic acid.

CASE II.—This was also a multipara aged about forty. Her last child was born some twelve years ago, and for the last eleven years she has had a slowly growing uterine tumor causing excessive monthly flows. Several times during the last two years the hemorrhages were so bad that her life was despaired of. Everything had been done for her that several excellent physicians could devise, but to no purpose, and she finally fell into the hands of my friend, Dr. Oliver P. Rex.

Finding the hemorrhages wholly uncontrollable, he asked me to see her. She was then a complete wreck, very pale, thin and bloodless, and unable to keep down food of any kind. She was nourished by rectal injections, and had become so weak as to be bed-fast. A large fibroid tumor lay in the hind wall of the womb and encroached upon the cervix, causing it to bulge somewhat into the vagina, but the os was not open enough to admit the finger. The uterine tumor reached very nearly up to the navel, and the sound gave a measurement of four inches. The means which we both adopted for checking the hemorrhage proving fruitless, it was decided to attempt the enucleation of the tumor; so on the 22d of last February, with the help of Drs. Rex, B. F. Baer, and Ingraham, and of several of Dr. Rex's students, I proceeded to operate. After first slitting up the margin of the os at several points, I was able to pass in my index finger, and along it the fine subcutaneous saw. With it I now divided the capsule, and also that portion of it formed by the hind lip of the cervix. As soon as it was opened, a stream of warm liquid gushed over my hand, and for a moment I feared I had got into the rectum or into the peritoneal cavity. It came, however, from some cyst in the tumor itself. The fibroid was now seized with a volsella, and slowly enucleated from its bed by the finger. Without the fluid that escaped, the growth weighed eighteen ounces. To stop the oozing, which was quite free, vinegar was injected into the mural cavity, and a sponge crowded into the uterine cavity. Owing to her excessive debility the lady recovered very slowly, but she ultimately got well.

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CASE III.—Four days after I had operated on the previous case, an unmarried southern lady, thirty-nine years old, consulted me about a fibroid tumor which she first discovered seven years ago, and which was killing her by frequent and long-continuing hemorrhages. So bloodless had she become that she looked like a wax figure. Most of her time she spent either in bed or on the sofa, and life had become a burden to her. I found the womb occupied by a very large fibroid tumor, which carried the fundus up to a point above the navel. The cervix was not implicated, but its canal was open enough to permit me to force in my index finger. By it the whole of the narrowed uterine cavity could be explored, except at one point where there appeared to be a small opening. Into this the sound entered to a distance of 7.75 inches. My diagnosis was a partly interstitial and a partly submucous fibroid, with adhesion of the opposing mucous surfaces of the enlarged cavity of the womb.

She was at once put upon the use of ergot, but it gave her so much pain and kindled up such constitutional disturbances that I was forced to give it up. On March 17th, with the help of Drs. Emory Eshleman, B. F. Baer, and Jacob Roberts, of Philadelphia, Dr. Ingraham, of Jamestown, N. Y., and Dr. J. A. Murphy, of Wilkes-Barré, I purposed to attempt its enucleation. But owing to the small size of the os, which, although nicked at various points, did not give me room enough, I simply incised its very thick muscular capsule. This was done by the subcutaneous saw, and proved to be no easy task, the loss of blood being at one time alarming, but it was checked by injections of vinegar. Ergot was now given by the mouth in as large doses as she could bear, and in ten days the lower end of the fibroid began to project from the os externum. At first I decided to leave its extrusion to the efforts of nature, but the constant purulent discharge so weakened my patient that I was forced to interfere. So on April 1st, with the help of Drs. Baer, Eshleman, and J. P. Patterson, I succeeded in enucleating it. The operation was a very difficult one, the tumor being removed in large fragments. They weighed twenty-eight ounces. The loss of blood during the operation was not great, but the lady had by this time become very weak, and she died on the next evening with all the symptoms of heart-clot.

The above three cases occurred in women so desperately low and anæmic from repeated losses of blood, that it is a wonder to me that any of them recovered. Yet from the successful issue in two cases, I feel that the third case would have done well, had she come to me when she was stronger and better able to bear the shock and the loss of blood.

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Such formidable operations as these should not be undertaken directly before the monthly period, as the womb is then in a congested condition and more likely to bleed. Nor should they be performed just after a severe hemorrhage, but when the woman has rallied from its effects. The hemorrhage during the operation is quite free, and may become alarmingly so. I have, however succeeded by injections of vinegar in checking it sufficiently to go on with the operation. Vinegar, although not so potent a hæmostatic as a solution of the iron subsulphate, is preferable, because it does not make firm blood-clots, and does not incommodiously constringe the parts. Should oozing follow the enucleation, injections of vinegar ought first to be tried. If they fail, the bed in which the tumor lay should be swabbed out with a strong solution of the iron salt. It may, indeed, be needful to stuff the wound with iron-cotton, but whenever practicable, it will always be best to fill up the uterine cavity with sponges, to which withdrawing strings have been fastened. The opposing raw surfaces of the wound will then be forced into firm contact, and the healing will be speedier.

There is yet another class of fibroid tumors, like the third preceding case, which cannot be treated by immediate enucleation. They hardly project into the uterine cavity, or they are situated so high up as not to be accessible. In these cases the capsule of the most prominent portion of the tumor should be incised. The finger is then passed into the wound, and the capsule stripped off from the tumor as far as it can be reached. Ergot is now given, and the extrusion of the tumor left to the expulsive efforts of the womb. Although it is best to make the incision as long as possible, it is astonishing through what a small opening a large fibroid will deliver itself. I have seen large tumors work their way through an incision barely large enough to admit my index finger. Of course the opening becomes much larger by stretching and by ulceration. This process of slow extrusion may last for weeks, and as the tumor descends, should be aided by traction and by breaking up the capsular attachments as they come within reach. But on several occasions I have had the tumor wholly enucleated and unexpectedly thrown off, without any manual help on my part; the expulsive effort of the womb being in those cases equal in violence to the throes of labor. Sometimes, in this method of slow extrusion, necrosis of the tumor takes place, and it comes away either in fragments or in putrilage. The risk of blood-poisoning being great in such cases, the utmost care should be taken, by detergent intra-uterine injections, to keep the sloughing mass as sweet as possible.

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And further, the extrusion of the growth should be hastened by artificial means.

Of such cases I have had a number, and all successful. In illustration of the mode of dealing with them I shall, however, limit myself to one example:—

Mrs. M. K., aged 44, has been married twenty-two years. Ten years ago she gave birth to her only child, and since then has complained more or less of uterine symptoms. For the last five years she has been very much weakened by a serious menorrhagia, progressively growing worse. Of late, her periods appear every three weeks, and last seven days. The loss of blood on these occasions is so great that her life has repeatedly been in danger. She had in vain consulted a number of physicians, and finally fell into the hands of my friend, Dr. A. Rothrock, of MacVeytown, who sent her to me in the spring. She was very pale, quite bloodless, and prematurely gray. The womb, much enlarged in every direction, lay backward, and measured 3.5 inches by the sound. The cervix was unusually long, and its canal, up to the os internum, admitted the finger. A fagot of sponge- and laminaria-tents was crowded in. Upon its removal on the next day, I found a partly interstitial and partly submucous fibroid tumor, as large as a goose's egg, occupying the hind wall of the womb. By Adams's saw I incised the capsule of uterine tissue covering the bulging portion of the tumor, and with my finger stripped it off. The bleeding was trifling. As the denuded portion of the tumor was too flat and did not project sufficiently into the uterine cavity to be seized, I found it impossible to do anything further at that time. So ergot was given by the mouth and kept up for two weeks. The naked portion of the tumor broke down, and on the tenth day was expelled in two large fragments. For four days I waited for the rest of the growth to be expelled, but as it did not come away, and the woman was daily growing weaker from the abundant and offensive discharge, I put in another batch of tents. When they were removed, I found but little difficulty in seizing, and wrenching away from its bed, the remaining and interstitial portion of the tumor. Under large doses of quinia and repeated injections of the uterine cavity with carbolated solutions, the woman got well without a bad symptom.

To complete this paper some reference must be made to a class of fibroids, which, being snb-peritoneal, are not amenable to any radical treatment per vaginam. If pedunculated, they can be treated like ovarian tumors, by laparotomy. Sometimes they are removable by enucleation through an abdominal incision, as in a

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successful case sent to me by Dr. A. H. Sheaffer, of Lewistown, in which the tumor weighed seven pounds. In one case, I obtained perfect success by removing the ovaries, and thus artificially bringing on the change of life. But as these cases are embodied in the paper which I had the honor of reading before you last year, I shall make no further allusion to them.

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ADDRESS IN OBSTETRICS.

THE HISTORY OF OBSTETRICS IN PENNSYLVANIA.

By JOHN T. CARPENTER, A.M., M.D.,
OF POTTSVILLE, SCHUYLKILL COUNTY, PENNA.

To trace the history of the rise and progress of the Obstetric Art in the State of Pennsylvania, has seemed to be a theme worthy of the occasion of the Annual Address in Obstetrics. For, besides the fact that no sketch of this interesting subject has ever been laid before the Pennsylvania State Medical Society, it is, also, a theme justifying the indulgence of an honorable State pride, when we consider that the history of Obstetrics in America is largely and chiefly the history of Obstetrics in Pennsylvania.

Indeed, the first institution of learning in this western world for the training of medical men, was founded in Pennsylvania. Within our borders were educated the medical observers and philosophers upon whom rested the future of American Obstetric Medicine.

Here, for the first time in America, a full course of lectures in Obstetrics was att mpted as a part of medical education, in opposition to the prejudices not only of the community, but even of the profession itself. The domain of Obstetrics was a dark and unsurveyed region in the early days of Pennsylvania.

As little was known of its limits and landmarks, in that time of inherited ignorance, as was known of the wilderness to which our first physicians came to help found the commonwealth. Its laws and rules were yet to be laid down—its primary facts to be gathered together—nay, its very study to be made a reputable and honorable pursuit.

To accomplish all this, a long line of noble teachers and writers—the apostolic succession from 1765 to 1880, of men anointed with wisdom to see and teach medical truth—have illustrated and adorned the annals of the obstetric art. From the fervent professional zeal, and from the unwearied labors of a Shippen, Bond, Duffield, James, Church, Dewees, Chapman, Hodge, Meigs, Atlee, and Parry, and

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of many contemporary living teachers (some of whom are numbered on the roll of this Society to-day), it has been finally accomplished that the condition of Obstetrics is that of the most perfectly cultured of the great divisions of medical science and study.

In 1765, the condition of the obstetric art was one of entire professional neglect and disesteem. Its practical duties at the bedside were almost entirely in the hands of uneducated midwives. Only in cases of great difficulty and danger were physicians consulted, and very considerable mortality was the result of unskilled management. As a science, under methodical rules, midwifery did not exist. Even in Europe, the exertions of Smellie and Hunter were only beginning to establish the practice of Obstetrics as necessarily requiring extensive medical knowledge, and as worthy the attention of the medical practitioner. The Edinburgh College of Physicians had prohibited the admission of any medical man into the College who should practise midwifery. And though this rule was finally rescinded, it was not for many years afterwards that Fellows of the College were permitted to practise Obstetrics. Even in the University of Edinburgh, the professor of Obstetrics was not recognized as a member of the Faculty of Medicine.

In France, the science of Obstetrics was only in process of being established by the labors of Mauriceau and the great Baudelocque.[1] It is, therefore, not a matter of surprise to find that, when the Medical School was founded in the College of Philadelphia, in 1765, there was no provision made for the study of Obstetrics. After some time, however, it was included as a subordinate subject, and put under the charge of the Professor of Anatomy, Dr. Wm. Shippen. This was a most fortunate appointment. The special studies which Dr. Shippen had pursued in London under Smellie and Wm. Hunter, rendered him exceptionally qualified to teach Obstetrics, as well as specially devoted to its interests. Indeed, we find that he advertised in the *Pennsylvania Gazette* of January 1, 1765, a course of private lectures in midwifery, and goes on to state that "in order to make the course more perfect, a convenient lodging is provided for the accommodation of a few poor women, who otherwise might suffer for want of the common necessaries on these occasions—to be under the care of a sober, honest matron, well acquainted with lying-in women, employed by the doctor for that purpose."

This was, undoubtedly, the first attempt in this country to give a regular course of obstetric lectures, and establish a ward or hos-

[1] Vide Carson's History of the Medical Department of the University of Pennsylvania, pp. 110, 111, et seq.

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pital for lying-in women. All honor, therefore, to Dr. Shippen for his sagacious and practical exertions, which were crowned with deserved success. His example was speedily followed by others. We find Dr. Thomas Bond, in 1781, giving obstetric instruction in the Pennsylvania Hospital in connection with clinical lectures. Private lectures were given by Dr. Duffield in 1793. A regular course of obstetric lectures was given by Dr. Thos. C. James, in conjunction with Dr. Church, beginning in 1802; and, in order to be able to instruct practically, as well as theoretically, his influence and exertions prevailed in having a lying-in ward opened at the Philadelphia Almshouse, over which he presided as attending accoucheur. This was the origin of the present obstetric department of the Philadelphia Hospital.

The obstetric department of the Pennsylvania Hospital was next established in 1807, and Dr. James was appointed to take charge of its management also.

With two lying-in hospitals established, and clinical instruction given in them, the next advance in the history of Obstetrics in Pennsylvania was a most important one: the separation of the Chair of Obstetrics from that of Anatomy in the University of Pennsylvania. This auspicious event occurred on the 29th of June, 1810, and Dr. James was chosen to the new position. A mark of its inferior status was put upon this professorship by the regulation that attendance on these lectures was not a requisite for graduation. Subordinated by this precious bit of special legislation—a relic of the prejudices of the profession against the practice of midwifery—it was not until 1813 that as full and equal recognition was given to the study of Obstetrics as to that of Surgery or the Practice of Medicine. The following is the resolution on the minutes of the Board of Trustees:—

"*Resolved*, that hereafter the Professor of Midwifery shall be a member of the Medical Faculty, and that no person shall be admitted as a candidate for the degree of Doctor of Medicine in this University unless he shall have regularly attended the lectures of the said professor for two years."

On this event Dr. Hodge, in his life of Dr. James, thus comments:—

"This triumph of truth and humanity over ignorance and prejudice may be considered as complete. Obstetrics was confessedly equal to the other branches of medical science, and its practitioners and teachers authoritatively pronounced on a par with those of Surgery and the Practice of Medicine. The battle had been fairly fought and won, and Dr. James, who contributed so much to the

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happy issue, received the reward so eminently due to modest worth, superior talents and attainments, united with persevering industry."

Eminent as were the services of Dr. Shippen and Dr. James in raising to respectability and independence the study of Obstetrics, there was another "master workman" who was bending all the energies of a massive will and the power of a commanding intellect to lay well the foundations of this new temple of science.

The connection of Dr. Wm. Potts Dewees with Obstetrics constitutes an epoch in the history of American medicine. According to Prof. Hodge, he was the first who attempted a full course of lectures on obstetrics in America.[1] He was the first authoritative writer on this branch whom the country has produced, and wielded, at the time when his personal influence was unbounded, a sway over the opinions of his contemporaries which directed their practice and controlled their action. "Dewees bears the same paternal relation to American obstetrics that Physick does to American surgery, and Rush to American practice." What a galaxy of names to adorn a medical era! What tripod, more secure, ever bore the weight of a nation's medical future?

The relations of Dr. Dewees to Obstetrics were threefold. In all he stood unrivalled. *As a practitioner*, his popularity was based upon dexterity, boldness, originality, and consummate judgment.

As a writer, he gave to America what Dr. Hodge pronounced, twenty years after its publication, "probably the best practical book in our profession"—a book which was admired and quoted by European authorities as a work of standard reference and of extraordinary merit.

As a lecturer, his popularity was great, and his influence widely extended—his pupils distributing his fame as well as his valuable instructions throughout the extent of our country.

To Dr. Dewees (as remarked by Prof. Parvin)[2] we are more indebted than to any one else for the general preference on the part of the American profession for the long forceps. To him belongs the honor of pointing out the value of venesection, not only in overcoming rigidity of the os uteri, but also in diminishing the resistance of vaginal cicatrices—the utility of his teaching and practice in this regard being recognized by foreign obstetricians.

Dr. Dewees settled measurably the American practice of midwifery

[1] Eulogium on Wm. P. Dewees, M.D., delivered before the medical students of the University of Pennsylvania, Nov. 5, 1842.

[2] Transactions of the Inter. Med. Congress, Address on Obstetrics by Prof. Parvin, page 143.

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at home, as well as gave it repute and dissemination abroad. His statement of truths and enunciation of principles were so clear and satisfactory as to need as yet no revision.

His late election to the Chair of Obstetrics in the University was a tardy recognition of the brilliancy of his services; but his connection with that institution has dowered it with his great renown.

Next among the galaxy of our great men in Obstetrics come those associated names Meigs and Hodge—linked together in our memories as inseparably as Castor and Pollux in ancient story, the twin heralds of light and guidance to storm-tossed voyagers. One name recalls invariably the other—especially to us who have listened to the instructions given by the one or the other of these wise teachers from the professor's seat.

A contemporaneous teaching, a warm personal friendship, a generous rivalry, distinguished and associated forever the names of Charles D. Meigs and Hugh L. Hodge. The accomplished preeminence of Pennsylvania in their branch of medical science was maintained in their day, chiefly by their influence. Few men ever had more positively marked personal characteristics. Few worked more effectually than they, and with more apparently diverse methods of thought and expression.

Dr. Hodge was a steadfast, methodical, and laborious student of his specialty. Without external brilliancy of manner, there was so much solidity and strength in his teaching that no one failed to receive from it a most thorough idea of his entire subject.

The mechanism of labor was more thoroughly expanded and clearly taught by Dr. Hodge than ever before. Another theme in which the wonderfully practical character of Prof. Hodge's teaching was displayed, was that of the obstetric forceps. A most complete exhibit of the instrument, from its earliest to its latest forms, was made to his classes. Its use, not only as a tractor, but as a compressor of the cranium as well, was most lucidly set forth. Finally, an exposition of the principles adopted in the construction of his own instrument was most convincingly stated.

If to Dewees we owe the American preference for the long forceps, we surely owe to Hodge the perfecting of its mechanism by long study and correct indications for its practical use. Dr. Hodge's own instrument is probably at this day the most widely approved and used of all the forms of the long forceps.

But the most valuable legacy of Dr. Hodge to the medical profession is the mechanical treatment of the displaced uterus by intravaginal support. The lever pessary as the practical result of his theory of "irritable uterus," is the accepted instrument, wherever

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gynæcology is practised in the civilized world. The proper view of uterine diseases, as largely dependent upon displacements, and as not being primarily inflammatory, was originally taught by Dr. Hodge. Its logical consequence, of treating the displacement and not the results thereof, was consistently practised. And we confidently affirm that the medical profession and womankind owe a debt of great gratitude to the wise teacher.

Dr. Hodge did not rush rapidly into print. He gave the medical world the results of his untiring studies and vast experience in the "fulness of time." It was not until 1860 that his work on Diseases of Women was published—after twenty-four years' occupancy of the obstetric chair; nor until 1864 that his classic work on the Principles and Practice of Obstetrics appeared—a year after his resignation from the University. On these works rests worthily the great reputation long before secured to him by the daily teaching and practical studies of his long and honored professional life.

If we have striven to give a faithful picture of one of these great men, let us not seem to undervalue the services rendered by his compeer.

Charles D. Meigs was one of the most remarkable men of his day. Versed in classic lore—gifted with rare eloquence—and instinctively seizing the salient points of every subject he attacked—his power to instruct was only surpassed by his ability to enchain the students who crowded his class-rooms in the Jefferson Medical College. It was, indeed, largely due to Prof. Meigs that the success of the school was so great and enduring.

No teacher ever more completely swayed his audience, or more agreeably imparted instruction. Dr. Meigs's writings were always penned with grace and fluency of style; and were sometimes obnoxious to the just criticism of want of dignity of expression, and of the introduction of sparkling dialogue, or vivid word-painting, not suitable to scientific study and serious work. But, criticized severely as truth can allow, these writings still hold the admiring attention of the majority of the profession. In the letters on Diseases of Women, to which most of this sort of critical objection has been urged, there is no attempt at the methodical or purely didactic. Nor is the work one of scientific value at the present day. Dr. Meigs's enthusiasm of ideas led him into some extravagant theories, *e. g.*, as to the endangium, or living membrane of the bloodvessels, having no foundation in pathology.

Again, he shared the prejudices of more cautious men against ovariotomy and uterine surgery generally—and disbelieved (as Dr. Hodge did also) the contagiousness of puerperal fever. Unlike

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many, however, enthusiastically proclaiming his views, and taking up positions now known to be untenable, with a zeal and determination all his own, he injured his reputation as a cool and deliberate student of doubtful questions.

His work on Obstetrics, received with great favor by the profession, though not so methodical or philosophical as that of Dr. Hodge, is an able and brilliant work. It contains Dr. Meigs's most valuable discovery of a frequent cause of sudden death after delivery, viz., by a heart-clot or pulmonary thrombosis. His graphic description of the terrible event impresses the picture so vividly that it must be instantly recognized, even when first met with at the bedside. "Meigs's heart-clot" should be the recognized title of this fatal condition, first made known to the profession by the genius of the great master.

As an obstetric practitioner Dr. Meigs was unrivalled. His fertility of resource and decision of conduct in the presence of danger and doubt have been described as surpassing all praise. Doubtless the impress left by his personal skill upon the minds of the many physicians who availed themselves of his help in extreme cases, had as much influence as his lecture room instructions, in extending and improving the knowledge of the art of obstetrics.

One other of the "men of renown" who vigorously pioneered the way for the advance of medical science has still to be recorded. Any sketch would be incomplete which failed to commemorate the invaluable labors in gynæcology of Dr. Washington L. Atlee. Specially before the Pennsylvania State Medical Society he should be mentioned with honor, who in 1873 was its honored president, and always one of its most valued members.

So recently commemorated as last year in the annual address of the president of this Society, it is only necessary now to note that devotion to duty and unflinching honesty in seeking truth, at the expense of professional obloquy and scorn, even to the utmost limits of human endurance, were traits of character which sustained him until the day of triumph came.

Denounced for daring to perform ovariotomy, by surgeons and obstetricians, by learned professors in both of our great medical schools, and by the great mass of the profession as well, his determination, his honesty, and his ability at last gained their due reward. His name is honored over America and throughout the world. Ovariotomy is accepted as one of the greatest boons to suffering humanity. And the name of Atlee is forever associated with its performance.

Equally daring and successful was his bold innovation of dealing

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surgically with uterine fibroids before their expulsion from the cavity of the womb—a measure previously believed to be impossible.

Dr. Atlee's writings were principally relative to the two subjects which he made so completely his own, but a variety of papers and addresses, scattered through the medical journals, attest the unwearied devotion of his mind to medical science. Before this Society he delivered in 1872 the annual address in obstetrics, on the use of the speculum in diagnosis and treatment of diseases of the uterus, as well as the president's address in 1875, at the meeting in Pottsville.

When we consider that we have now traced the history of Obstetrics in Pennsylvania down to the time of the present generation of medical men, it seems astonishing that so great a work was accomplished by so few of our predecessors.

But if the work was arduous, the workmen were intellectual giants. Few as they are, whose names are recorded in this brief history, their labors were abundant. Their teachings were spread abroad over the whole American Continent. Hundreds of unnamed colleagues verified their principles and carried out their precepts over the length and breadth of the land. Their words were winged They spoke with no uncertain voice. Their light shone, and illuminated the entire profession. They made no step backward. Every advance in knowledge was made secure, and every truth established with unwearied diligence, until, to-day, Obstetrics is a more complete and exact art, and a better understood scientific study than either surgery or the practice of medicine. It is now committed to the keeping of a new generation of living teachers, who are engaged in settling well its pathology, in completing its means of diagnosis, in perfecting its surgical methods, and studying closer than ever its therapeutic resources. Its literature becomes continually fuller and richer. Its study becomes continually more exact. We may look forward confidently to the time when the perfected knowledge of the mechanism of labor shall have enabled us to provide perfected means for meeting every necessity in its management; when pain will be universally relieved by anæsthesia and when mortality from obstetric accidents and diseases will be constantly diminishing under precaution and providence against them; when gynæcology will have lost its prominent position, because perfected obstetrics will have diminished the supply of cases requiring medical and surgical interference.

In that future day, the names of some of our present associates, who so honorably sustain the obstetric reputation of Pennsylvania, will be mentioned with plaudits, as of the number who have made the obstetric art what it then shall have become—a complete study.

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SOME NEW REMEDIES IN THE LOCAL TREATMENT OF SKIN DISEASES.

By JOHN V. SHOEMAKER, A.M., M.D.,
PHILADELPHIA, PA.

At the last meeting of the State Medical Society I called attention to "Some important topical remedies, and their use in the treatment of skin diseases." Since that time I have been enabled to make further practical observations upon some additional preparations, which I bring forward in this paper.

Oleic Iodoform, the first medicinal remedy that I shall consider, is prepared by dissolving about twenty-four grains of iodoform in oleic acid. The preparation thus formed is a yellow oily liquid, with a very slight odor of the iodoform. The strength of the solution should be 5 per cent., or about twenty-four grains of the iodoform to the ounce of oleic acid. Should the amount of the iodoform be increased it will recrystallize from its warm solution, and will not add any additional therapeutic action to the remedy. As far as I have been able to learn I believe that I have been the first to use these two preparations in combination. I have had this oleic iodoform prepared in the above manner by Dr. L. Wolff, of Philadelphia, and have used it for some time with both marked and beneficial results. It is an exceedingly valuable remedy, and possesses many advantages over iodoform dissolved in either lard, alcohol, ether, chloroform, or the fixed and volatile oils. The great advantages that this combination has over other iodoform preparations are as follows:—

First, it never becomes rancid, like ointments, neither will it evaporate like spirits and ethereal combinations of iodoform.

Secondly, the oleic acid removes very much the disagreeable smell of the iodoform.

Thirdly, the oleic acid will not in any way destroy the identity of the iodoform, but will much enhance its value by the combination. Abundant therapeutic experiment has already shown that the local

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action of iodoform has been to heal and soothe the parts upon which it is applied. The addition of the oleic acid with its active solvent power, and its ability to penetrate deeply and rapidly into the animal textures, will render the iodoform far more active and effective in many skin diseases.

Fourthly, oleic iodoform not only possesses great penetrating and absorbing power, which manifests itself in prompt remedial action, but it is also one of the most economical and cleanly preparations that can be applied to the skin. It is an economical preparation, as a very few drops suffice for its remedial action, and one should always recollect this fact, and should never prescribe more than one or two drachms at one time. It is also remarkable as a cleanly agent, for, by its rapid absorption into the tissues, it will not stain the linen, as most ointments do.

Oleic iodoform should not be rubbed in like ordinary spirits, liniments, or ointments, but should be lightly brushed over the surface with a camel's-hair-brush.

Oleic iodoform, applied to the unbroken skin, produces slight stimulation, but when used upon ulcers and abrasions of the mucous membrane it acts as a decided astringent. If brought in contact with discharging surfaces, and luxuriant granulations, it will check all secretion by contracting the vessels, condense the tissue, coat over the parts by precipitating the albumen, and so protect them from the injurious action of the air. This combined stimulant and astringent action of this preparation renders it a useful application in a variety of skin affections.

In scrofulous disease of the skin it is a most valuable adjunct in the treatment. When the glands are involved, and the oleic iodoform is applied over the surface, the stimulating and penetrating action of the combination assists rapidly in reducing them to their normal size. In another class of strumous subjects, in which the lymphatic ganglions suppurate, break down, and form scrofulous ulcers, which give exit to unhealthy and fetid pus, the application of the oleic iodoform assists in checking the formation of the pus, acts as a disinfectant by destroying all the odor, speedily reduces the abnormal state, and largely adds to the cure of the disease.

Oleic iodoform is also valuable in stimulating granulation and the hardened edges of chronic ulcers of the limbs and back, and likewise restrains and deodorizes the discharges of the part. In boils and carbuncles, the free application of the oleic iodoform, before suppuration sets in, will lessen the pain, and at times will cause them to abort. After an incision has been made in a car-

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buncle, the use of the oleic iodoform will overcome any noxious odor from the part, and will hasten the process of repair.

In psoriasis of the head, where one finds the scalp covered with a good crop of hair the best application that can be used is oleic iodoform, which acts effectually in connection with the proper internal remedies. By rubbing this preparation of oleic iodoform thoroughly into the scaly patches of psoriasis of the scalp, it is quickly absorbed, and is far preferable to the various ointments which largely remain on or in the hair, and are either brushed off on the covering of the head or drop down on the neck.

Oleic iodoform can also be used with great benefit in functional diseases of the sweat glands. Thus I have employed it with decided advantage in the profuse secretion of sweat from the axillæ, the palms of the hands, the genito-crural folds, the fundament, and the soles of the feet. Again, its use in that disease in which the odor of the perspiration of the parts just named becomes offensive, both to the patient and those around, not only causes the odor to disappear, but often arrests the diseased condition itself.

In addition to the above observation, I have also found a combination of the oleate of mercury with iodoform to be of very great advantage, especially in the local treatment of syphilitic affections of the skin. This combination can be made by adding about twenty-four grains of *iodoform* to the ounce of oleate of mercury, which gives a yellowish liquid with a very slight odor of the iodoform. The oleate of mercury with iodoform is markedly serviceable when syphilis affects the mucous surfaces, often curing this obstinate form when other remedies have been tried in vain. For example, I have used this combination in a large number of cases of syphilitic ulceration of the tongue, in which the organ has been enlarged and its surface covered with tubercles, ulcers, and fissures, with most decided success, after other remedies had entirely failed. I generally pencil with the preparation the surface of the organ twice a week, and am convinced of its value in these harassing cases by the repeated good results I have witnessed by its use. The same combination is very beneficial in pityriasis, especially of the hairy parts of the body. It is one of the best parasiticides, and is useful in favus, tinea tonsurans, eczema marginatum, and tinea versicolor. In using it in this latter affection, the surface should always be washed with soap and water preparatory to its application, and after repeated use it will be found that the itching will cease, and the fawn-colored, dry, and branny scales will gradually lessen until all traces of the disease have disappeared.

The oil of ergot, the next remedial agent that I shall refer to,

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came under my observation in the following curious manner. Eight or nine months since, while conversing and examining with Dr. Wolff, of Philadelpaia, in his laboratory, some *medicated soaps* and *oleates*, I was attracted to an *oily* liquid that stood on one of his tables, and upon inquiry I was informed that it was a refuse material known as oil of ergot. Dr. Wolff at the same time offered to send some of this oil to the dispensary, and added that I might find it useful in some skin affections. The preparation was accordingly sent, and after using it for some months I was agreeably surprised to find most decided benefit in its use for a number of cutaneous diseases. Since using the oil of ergot, I have carefully searched the various therapeutic works and the different journals, and have failed to find any one who has previously made any observation upon its external use.

The oil of ergot has long been known as one of the principal ingredients of the ergot. As found in the laboratory of the chemist, it is the waste material that has been left after preparing the various ergot preparations. If specially prepared, it can be made by the addition of benzine to ergot by the process of displacement, and afterwards allowing the benzine to slowly evaporate. When obtained from recently collected grains, it has a reddish-brown color, and about thirty-five parts of it are present in every hundred parts of ergot. It is a moderately thick, non-drying, fixed oil, and contains resin, cholesterin, and lactic acid. It has a slight odor of herring pickle, an acrid taste, and is soluble in both alcohol and alkaline solutions. As a local remedy, this refuse oil is much cheaper than any of the other oils and fats, and contains, in addition to its fixed oil, other ingredients that make it a most important therapeutic agent. When applied to the skin, it has a protective, soothing, and astringent action, and by its absorption frequently assists in nourishing the diseased part.

Excellent results can be obtained by using the oil of ergot in the acute variety of eczema. Particularly is it valuable in that form in which the part is hot, tumefied, and covered with small vesicles, some of which have burst, and the fluid coming in contact with the surrounding parts has caused considerable irritation. If the oil of ergot is painted over the surface in such a condition, it will exclude the air, allay the itching, constringe the engorged capillaries, moderate the weeping of the part, and prevent the formation of crusts upon the diseased surface. It is a most useful application in eczema of the lips, in which the surface is tumefied and fissured, and readily bleeds upon the slightest movement of the parts. It is also efficacious in cracked nipples. Pieces of cotton saturated with oil of

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ergot, and placed over the lips or the nipples for a short time each evening before retiring, generally arrest the diseased state. The oil of ergot is a most important remedy in herpes of the genitals. Applied either with a brush or a piece of cotton in this affection, it allays the red, swollen, smarting, and burning sensation of the parts by its soothing and astringent action.

Few remedies are so efficacious as oil of ergot in checking the formation of scales in seborrhœa of the scalp and other hairy parts of the body. If there be an accumulation of scales and sebum upon the scalp, and the hairs be parted down to its surface, the free use of this oil will bring about the most happy results. In a number of instances I have witnessed the efficacy of this remedy used in the following manner: I direct the patient at night-time, just before retiring, to pour a quantity of the oil of ergot upon the scalp, and to rub it in thoroughly until all the masses of sebum become soft and loose, and the surface is saturated with the oil. The head should then be protected by either an *oiled silk*, muslin, or flannel cap, or a bandage, in order to prevent the oil from soaking through and soiling the bed linen. In the morning the dressing should be removed, the scalp covered with a copious lather of soap, and afterwards washed out with warm water, so as to get rid of all the loose masses of sebum. The patient should next dry carefully the surface with towels, and again rub into the scalp a small quantity of the oil of ergot, as a hair oil. This preparation is to be preferred for this purpose to either olive, almond, or any of the bland oils, both for its cheapness and for its medicinal activity upon the diseased state of the scalp. It not only overcomes mechanically the condition of the parts, but likewise arrests by its soothing and astringent action the dry and lustreless state of the hairs and the deadened appearance of the scalp. This twofold purpose that the oil of ergot fulfils, makes it superior to all other medicinal preparations that are used for seborrhœa sicca at the present time. In using the oil of ergot for seborrhœa sicca of the scalp where a stimulating action was indicated, I have sometimes added one or two ounces of alcohol to three or four ounces of oil of ergot, and applied it in the same manner over the surface with the most beneficial results.

The effect of the oil of ergot in seborrhœa of the genitals of both sexes is just as conspicuous. It should, however, when used in this part of the economy be pencilled over the surface, or applied with a piece of cotton, on account of the delicate condition of the mucous membrane of the parts. If used in the above manner, it will soften up the whitish cheesy masses which collect about these parts,

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check decomposition and bad odor, and arrest all red, hot, and irritable conditions of the surface.

Oil of ergot is also of great service as a local application in erysipelas. Brushing frequently the surface in this disease with oil of ergot relieves, by its soothing and astringent action, the tender and hot sensation, and causes the puffy, dry, and glazed appearance to abate.

In rosacea, or an enlargement of the bloodvessels and tissue of the face, after making punctures over the patches with a needle knife, and allowing the surface to bleed freely, the application of the oil of ergot will soothe the part, constringe the bloodvessels, and thus modify very much the diseased action.

Before concluding these remarks upon oil of ergot I should add that I have found it equally efficacious in various affections of the mucous membrane. In catarrh of the nasal passages, I have saturated a piece of cotton with the oil of ergot, and applied it by means of a probang, with the most beneficial results.

Applied with a piece of cotton in ulceration of the cervix uteri, the oil of ergot has acted with great promptness. In gleet, I have had some marked cures from its use by passing a catheter and injecting the oil far back in the *urethra*. In both leucorrhœa and gonorrhœa I have used from two drachms to one ounce of the oil of ergot, made into a six ounce emulsion, and had it injected night and morning, in a number of cases, with marked success.

I have, in concluding this paper, simply mentioned the local use of the oil of ergot in other affections of the mucous membrane not properly belonging to the title of my paper. I hope, however, before long to hear from some of my professional brethren further concerning the local use of this valuable preparation, that has, previous to my observation, been cast aside as refuse material.

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ADDRESS IN SURGERY.

By JOHN H. PACKARD, M.D.,
OF PHILADELPHIA.

Mr. President and Gentlemen:—

I approach the duty assigned me by the kind courtesy of our President of last year, with much diffidence. That duty, as defined in the resolution adopted by this Society in June, 1871, is to deliver an address reviewing the progress of surgery during the twelve-month just past. Superficially viewed, and especially by any one who has not the responsibility of the task resting upon him, it might seem to be easy enough, merely to glance over the abundance, I might say the superabundance, of medical periodicals, and to note what is recorded therein as new. But neither to you nor to myself would such a course be satisfactory. Strictly speaking, a review of the progress of surgery for one year is by no means readily made, and calls for the exercise not only of industry and vigilance, but of careful discrimination.

New things are not always either true or good, in spite of the enthusiasm with which they may be brought forward. Real progress consists in the development of truth, or in the addition of valuable resources to our means of combating disease. It needs but a slight retrospect of the last twenty years to inspire caution in the acceptance of novelties, however attractive in appearance or plausible in theory. Instances will at once occur to many of you in illustration of the truth of what I have said. The time was, and not long ago, when the day of ligatures to control hemorrhage was by a great many surgeons thought to have passed away. It was claimed, and the claim was sanctioned by names of great authority, that acupressure was in every way safer and more reliable. Several works were written in advocacy of it; and the various methods were described and discussed with a zeal and interest, which certainly seemed to promise that they would take a permanent place among the resources of our art. But at the present day, so far as my knowledge goes, there is no prominent surgeon who continues to rely upon acu-

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pressure in any form, or who holds it superior to other means of arresting hemorrhage. The mention of it no longer occurs in medical journals; it has become as much a thing of history as Paré's oil of puppies, or the glossocomium of Hippocrates.

Torsion was another means of hæmostasis which, although of great antiquity, was brought forward anew and strongly advocated a few years since. It was thought to have the advantage over the ligature of not interfering with primary union, while its simplicity gave it a great value as compared with acupressure. Thoroughly carried out, it seems to have been satisfactory as regards the efficient closure of the vessels; and yet it has been in great measure abandoned by most of the surgeons of our own time.

One more instance—the endoscope. Many of those present will remember how, not fifteen years ago, it was asserted that the pathology of urethral and vesical affections could only be studied, their diagnosis made out, and their treatment pursued, by means of this instrument. Much ingenuity was expended in devising the best kind of light for it, and in simplifying it. Who uses it now? One of its most enthusiastic supporters told me not long since, that he had not had his own endoscope out of its case for years. Yet I shall have occasion to mention presently a new form of this instrument, lately proposed, which may be found of use in the investigation of some exceptional forms of disease of the bladder.

The examples which have been adduced concern practical devices, the value of which, it might be supposed, would be very readily determined. But the difficulty is far greater in dealing with matters of theory admitting of discussion, and less susceptible of direct and convincing proof. I think that in the course of this paper some such mooted points will come up, one of the most striking being the great question of the day—that of antiseptic surgery.

It seldom happens that the great strides of science are taken with such startling rapidity as to attract universal attention. Far more frequently there is a hint given of an idea which gradually makes its way, first among a few, then spreading to a larger circle, attracting notice and discussion, perhaps opposition, until, by thorough testing, its actual status among facts or theories comes to be determined.

Sometimes a matter of real value is brought forward, examined, and for a time relegated to obscurity, because of some defect in its practical working; but in time it is reproduced, studied anew, put into such a shape as to be available, and then takes its place as a permanent addition to science.

Hence the record of a single year can scarcely be expected to em-

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brace a glittering array of discoveries. Enough if we are able to note the effect of research, either in suggestions, in additions to our knowledge of facts bearing upon contested points, or in the settling of opinion in regard to hitherto doubtful questions of theory and practice. Even in abandoning views which are proved to be erroneous, we are getting nearer to truth, and so advancing, though we may seem to be going backward.

Let me mention one more difficulty in the way to the successful accomplishment of the task now before me. The restless activity of our modern life, and the rapid diffusion of intelligence, with the vast increase in the army of workers, combine to make the field to be surveyed a much more complex one, and to confuse the eye of the on-looker. It is not as formerly, when there were a few central authorities, whose sanction gave the key-note to the opinions of the common herd.

But I must, without further preface, address myself to my work, only asking you, in view of what I have already said, to look leniently upon its imperfections.

I think it will be conceded by those who have studied the surgical literature of the past year, that there is manifest in it the influence of the higher science which has found its way into the teaching of our schools. As one illustration of this, let me adduce the constant mention in reports of cases, as well as in the discussions of various subjects, of medical thermometry as an element of the exact observation of the phenomena of disease. It is from such indications of the working of the true leaven, that we may draw auguries of the highest good for the future. Other topics press upon me so urgently as to forbid my dwelling longer upon this one. A partial review of the surgical publications since our last meeting would be invidious and unsatisfactory, while a complete one would be out of the question.

In the region of surgical pathology, we have to note several matters of much interest.

One of the most curious of these is that of *lipæmia*, or fatty embolism. This was first observed by Zenker, in 1862, in cases of fracture, and has recently attracted renewed attention. One of the elements of the shock so apt to follow severe injuries of this kind is thought to be the presence of fat in the shape of oil-drops in the pulmonary vessels, as well as in the right side of the heart, and in the capillaries of the kidneys and of other organs. Confirmation of this idea is found in an analogous condition not unfrequently observed in cases of diabetes, in which dyspnœa, prostration, and coma are apt to precede death.

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Very possibly this condition of lipæmia would be constantly detected upon careful examination in cases of death during the state of shock from compound fractures, such as are so often met with in hospital practice; and it may have only escaped notice by reason of the attention of those making the autopsies being absorbed by the grosser lesions. I would suggest that it may be an element of the recognized risk of surgical operations upon diabetics, and an additional reason for rigid analysis of the urine in chronic cases before instituting operative procedures.

Another subject of practical interest under this head is that of the connection between eczematous conditions of the nipple, and cancerous disease of the breast. Further study will doubtless render our knowledge on this point much more accurate; but it appears from the investigations of Dr. Thin, that the form of cancer which follows upon this peculiar disorder of the nipple may be designated as *duct-cancer*. Sir James Paget was, I believe, the first to call attention to this very important clinical phenomenon. Closely allied to this is the observation recorded by Dr. Lawson of London as to the frequent occurrence of an ichthyotic condition of the tongue as a precursor of cancer of that organ. Upon the practical value of the recognition of these early stages of malignant disease, it would be needless to dwell

One other statement in surgical pathology comes to us from Germany. Dr. Albert Neisser claims to have discovered a species of micrococcus always found in the pus of specific urethritis. Its exact significance pathologically has not yet been determined—but it is asserted that it is confined to pus from disease of this kind, and that it has been found in connection with no other

Perhaps I may mention, without its being considered as involving any slight upon the contributions of others, the researches of Dr. S. W. Gross upon sarcomata of the long bones. Originally delivered as the Mütter Lectures before the College of Physicians of Philadelphia, these studies were the subject of two articles in the *American Journal of the Med. Sciences* for July and Oct. 1879. They may, I think, be placed on record as a very valuable addition to our knowledge on this important and obscure topic in pathology.

In ophthalmology there has been less to note during the past twelve months than in some previous periods of the same length. The subject which has perhaps loomed up most largely has been that of color-blindness, on which much has been written, and many experiments made. As a matter of course, conclusions in regard to questions of this kind can only be arrived at as the result of the observation of vast numbers of cases. Opportunities for such in-

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vestigation are afforded by the need for examining railroad employés, pilots, sailors, and other persons whose capacity to distinguish colors is an essential requisite to the proper performance of their duties. Our public schools also present, in the large numbers of children attending them, a field of great value for such study. An ingenious arrangement for lessening the time and labor required has been devised by Dr Thomson of Philadelphia, who had undertaken this work with reference to the 35,000 employés of the Pennsylvania Railroad. It consists simply in attaching the colored worsteds used, in a certain definite order, to a slender wooden bar on which are printed numbers corresponding to the worsteds. The person to be examined has only to indicate the colors which seem to him to be alike, when by means of the numbers any clerk can note the result. By memoranda so made in connection with a thousand names, each one can be kept distinct, and the proper deductions made from the aggregate, from the average, or from single cases.

Ophthalmological therapeutics have been enriched by the further study of several remedies. Eserine has been found to exert a special influence in diminishing ocular tension, and this will probably be the main object of its use henceforth. Duboisia has taken a place as a mydriatic more powerful than atropia, and requiring caution in its use by reason of its active toxic effects upon the system at large.

Section of the optic and ciliary nerves has been suggested as an advantageous and equally efficient substitute for the removal of the entire eyeball, in the cases in which this latter operation has been for so many years regarded as the standard procedure. Prof. Chisolm. of Baltimore, has expressed himself more strongly in favor of this less severe operation than any other American authority who has yet spoken on the subject. One great advantage of it certainly seems to be, that upon the failure of "enervation," as this nerve-section has been called by its sponsors, the enucleation of the entire ball would still be as feasible as before; while the severing of the nervous connections gives reasonable ground for the hope that all trouble from the sympathetic relations of the two eyes may be considered as set aside.

Upon the subject of anæsthetics, it must be noted that, notwithstanding the frequent reports of fatal accidents from the use of chloroform, this agent still continues to be preferred by many surgeons, who assert that its inhalation is not more dangerous than that of sulphuric ether. It must certainly be considered strange that, with the vast number of cases in which ether is administered in hospital and private practice, both in city and country, deaths are not reported from it, if they occur. But we certainly do not meet with

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such accounts. A few years ago my attention was called by an ardent advocate of chloroform to some published cases of supposed death from ether; but in none of them was there satisfactory evidence, to my mind, that such was the true explanation of them.

Several other anæsthetic agents have been proposed, but have been found untrustworthy, either from their slow and uncertain effects, or from the danger attending their use. Such are the bichloride of methylene, the bichloride of ethylene, the dichloride of ethidene. But there is one, originally proposed by Nunneley, of Leeds, about five years ago, which has of late been extensively employed and warmly advocated by Dr. R. J. Levis, of Philadelphia, under the name of bromide of ethyl, or hydrobromic ether. This article has not yet been long enough generally known to warrant any positive expression of opinion in regard to it, especially in view of the various reports of those who have used it. According to some, anæsthesia is induced by it very readily, without struggling, and without nausea; others, perhaps from error in the mode of administration, have had trouble in these respects. One curious point in regard to it is the suddenness with which the patient regains consciousness and self-control upon the cessation of the inhalations. For use in office practice, this is a very great advantage. Facts are not yet available to enable us to decide upon the degree of safety of this agent, which will doubtless be widely experimented with, in view of the known ability of its advocates.

A French surgeon, M. Bert, has claimed great results from a new mode of giving nitrous oxide; and if the reports are not too highly colored, it seems as if he had made a valuable addition to our resources in the way of anæsthesia. He causes the patient to inhale the gas in a chamber containing compressed air; and it is stated that the insensibility thus induced was calm, profound, easily maintained, and passed off at once on the withdrawal of the agent.

In the surgery of the head it seems likely that the earnest and intelligent study which is at the present day bestowed on the anatomy of the brain, with special reference to the localization of the cerebral functions, will result in a much greater degree of certainty of diagnosis of lesions of that organ, both as to character and situation. Hence, as has already been pointed out, especially by M. Lucas-Championnière, surgical interference in cases of injury or disease may be directed to the precise seat of disturbance, and the probability of its success will be greatly increased.

In the surgery of the neck there have been of late years a number of new ideas, especially in the operative branch of the subject.

Excision of the larynx may now, it would seem, be assigned a

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fixed place among surgical procedures. According to a statement made to the Pathological Society of London, on the 17th of February of this year, by Dr. Felix Semon, there were then upon record nineteen cases in which this operation had been performed: sixteen of carcinoma, two of spindle-celled sarcoma, and one of perichondritis. One of the cases of spindle-celled sarcoma was still living, the operation having taken place four years previously. Dr. Semon stated that by reason of the isolation of the lymphatics of the larynx, primary cancer of that part is apt to run a less rapid course than similar disease in the pharynx. Hence also there is more probability of its successful extirpation. It may be noted that the first operation of this kind in America was performed on the 12th of October last, by Dr. Lange, of New York, and that the result was satisfactory.

I venture here to mention an operation of my own, for an epithelioma of the larynx, which occluded the pharynx, and almost wholly prevented swallowing. The patient was already much exhausted, and steadily losing ground, when it occurred to me to open the œsophagus, and to introduce a tube through which food could be passed into the stomach. The idea being approved by Drs. Cohen, Agnew, and Brinton, I carried it out, making an incision as for ligation of the common carotid artery, exposing the œsophagus, slitting it with a pair of scissors, and introducing the tube, without any difficulty. The details of the case, and the special arrangements of the tube, etc., will be published elsewhere. Suffice it to say that the operation was easily done, and gave great relief—but the patient continued to sink, dying four days afterward. There are certainly cases in which this "œsophagotomy without a guide" might be adopted with much advantage.

Perhaps I may be excused for recording also my experience in opening the thyro-hyoid membrane to give access to a growth situated on the vocal cord. The operation is one of very little difficulty; but it should only be done in the adult, as in children the space is too small to be available for any further procedure. Recovery took place very rapidly, and without a bad symptom, in the child on whom I operated. By experiments on the dead subject, I was satisfied that this would be, in some cases of adults, a valuable resource.

Of operations on the chest, the only one in regard to which there is anything for me to record is paracentesis of the pericardium, to which attention has been drawn afresh by an excellent monograph by Dr. John B. Roberts, of Philadelphia.

Another addition to practical surgery which merits attention is

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also a monograph—that by Mr. W. Adams, of London, on Dupuytren's finger-contraction, which he demonstrates to be independent altogether of the flexor tendons, and moreover to admit of remedy by the subcutaneous division of the fascia concerned.

The space at my command only enables me to make the merest mention of two very important operations on the abdominal organs proper. One is that of cholecystotomy, or section of the gall-bladder, for the removal of stone or other obstruction. Besides several foreign cases, a very interesting observation of this kind is recorded by Dr. Keen, of Philadelphia, in the *American Journal of the Medical Sciences* for Jan. 1879.

The other operation alluded to is the removal of the kidney, which has now been successfully done often enough to give it a positive place among surgical procedures. Of course the selection of suitable cases is of the utmost consequence. The lumbar region is the point of approach.

The operation of lithotrity at one sitting—or, as it is called by its proposer, Prof. Bigelow, of Boston, litholapaxy—seems to have gained in favor with further experience. A number of English surgeons, and among them Sir Henry Thompson, have expressed themselves either directly or indirectly in indorsement of the principle, and there seems to be really very little difference between the instruments they employ and those of Prof. Bigelow. Perhaps it is not speaking too harshly to say that there has been a certain degree of illiberality in the way in which the clear and detailed account given by our fellow-countryman of his method of operating has been received by the profession abroad. He was unquestionably the first to demonstrate a means of making available the tolerance of the bladder to prolonged manipulation, or rather instrumentation; the first to urge that it was not only feasible, but proper in a very large number of cases, to persevere at one sitting in removing the whole of a calculus. As every one knows, appliances had been devised for extracting fragments by suction, the chief of these being that of Clover; but the full development of the idea which it became possible to carry out by such means was due to the ingenuity and perseverance, we may even say to the courage, of the Boston surgeon. So much attention is now being given to the subject that it is hardly possible but that further improvements will be made in the apparatus. It is not likely, however, that this procedure will ever pass into the hands of the profession at large, since it calls for a certain special dexterity only to be acquired by practice. In this respect it will be like lithotrity—an operation which has probably been performed by comparatively few of the

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many thousand practitioners of general surgery in the United States.

Sir Henry Thompson has recently suggested the practicability of affording much relief in a class of cases hitherto doomed to great suffering—the subjects of enlarged prostate—by means of a suprapubic opening into the bladder, for the purpose of introducing a tube, to be permanently worn. He mentions five cases in which he has used this means, and thinks it might be of advantage if resorted to earlier.

A good deal of additional experience may be noted here as having been recorded in regard to nerve-surgery. Nerve-stretching seems to have rather gained in favor; an East Indian surgeon has resorted to it in tetanus, and he thought with some advantage, though a fatal result was averted in only one case out of four.

The suturing of divided nerves, or rather of their sheaths, has been several times accomplished with entire success.

Among surgical achievements may be mentioned the ligation, with success, of the middle meningeal artery, wounded in a case of compound fracture of the skull. This operation, which was certainly the only available procedure under the circumstances as detailed, was performed by Prof. Hueter, of Greifswald; it is believed to be the only one on record.

Mr. Richard Barwell, of London, has reported a fifth case of ligation of the right carotid and subclavian arteries, the lesion being in this instance an aneurism of the aorta. The previous operations, three of which had been successful, had been for aneurism of the innominate artery; in one, however, the seat of disease was afterwards found to be in the aorta. In the discussion which ensued on this report, at the Royal Medical and Chirurgical Society, the difficulty of accurate diagnosis in these cases was strongly urged, as well as the impropriety of surgical interference before a fair trial had been made of every medical means. An important indication of urgency was to be found in impeded respiration. One notable feature of this operation was the character of the ligature used; it was made of the middle coat of the aorta of an ox, cut in a long spiral strip, making a flat tape-like band, dried under extension with a weight, so as to remove much of its elasticity. Before use it is moistened, so as to make it once more flexible. This material, it is claimed, does actually undergo organization, while the shape prevents division of the inner coat of the vessel.

A case has been reported to the Academie de Médecine, in Paris, by M. Bucquoy, in which very marked improvement took place in an aneurism of the ascending aorta under electrolytic treatment.

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This may be added to the list of cases, both in this country and abroad, in which more or less advantage has been thus gained.

Coming, again, to the surgery of the abdomen, we find recorded an operation by M. Péan, at the Hôpital St. Louis, in Paris, for the removal of a cancerous tumor involving the pylorus. The case would seem to have been a desperate one, and it is hardly to be wondered at that even so bold an operator should have been "rather reluctant" to undertake a surgical procedure for its relief. However, the tumor was excised by an opening through the abdominal wall, and the surfaces of section (it is not stated whether the whole circumference of the viscus was taken away, or only the anterior portion) drawn in contact by means of catgut sutures. The man lived four days, some food being introduced into the stomach on the third. Transfusion of blood had been twice performed, on account of his alarmingly weak state. No symptoms of peritonitis were observed, but, as no autopsy was allowed, it is not unlikely that they were masked by the gravity of the general conditions present.

In this connection may be noted another claim to a similar kind of heroism. Langenbeck records three operations for the removal of the pharynx, in all of which a fatal result ensued, as he says, from the ill effects upon the larynx. He claims that the operation, when performed according to his rules, is entirely devoid of danger, and can be performed without much difficulty. I would say in all seriousness, that such a procedure should not be devoid of danger to the operator, for it ought to be punished as manslaughter. The whole spirit and motive of exploits of this kind is as far as possible from that of true surgery, which is the art of healing and not of mutilating.

I think the profession in this country would and should decline to indorse such performances as these.

An extraordinary case of excision of a floating kidney is recorded by Dr. A. W. Smyth of New Orleans. A curious feature of it is that the tumor had been, on the supposition that it was ovarian, stitched to the anterior abdominal wall; the operation being followed by hæmaturia. This tape having cut its way out, two subsequent attempts were made to attach the tumor in the same way, but on both occasions the needles broke, *the ends being left in the abdomen.* A third trial was again successful, but this time no relief was gained. Five years afterwards, a correct diagnosis having been arrived at, the organ was removed by an incision like that for lumbar colotomy. Recovery was very rapid, the patient walking about on the eleventh day.

I am permitted to refer here to another remarkable achievement

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in surgery, which also resulted successfully—the performance of a primary, synchronous amputation at the right hip-joint, and of the left leg below the knee. This operation was performed at the Hospital of the University of Pennsylvania, for railway injury, on the 4th of June, 1879, by Prof. John Ashhurst, Jr. The patient, a young man, walks with an artificial limb for the stump of the left leg, and with crutches.

Among surgical appliances may be noted the electric light, which Mr. Balmanno Squire, of London, has proposed in a new form, so arranged that it may be used in hospitals and even in private practice, although the expense attending it is likely to prevent its being generally employed. So far as this means of illumination is known in this country, it is as inferior to the ordinary candle or gaslight for surgical purposes, as the latter to diffused daylight.

The abandoned endoscope has been revived, as already mentioned, with an electric arrangement for affording a view of the cavities of the body. This instrument, called from the names of its inventor and maker the Nietze-Leitner endoscope, consists of a tube, having passed through it electric wires, by means of which a platinum wire is heated to incandescence. By an ingenious arrangement, a stream of cold water is kept flowing alongside of the wires, so as to prevent injury to the tissues by the heat. According to the accounts given of it, this instrument has been used satisfactorily in the exploration of the stomach and rectum; and Sir Henry Thompson speaks of it as likely to be occasionally useful in the detection, in the urinary bladder, of some removable growths, of foreign bodies, or of sacculated stones.

An ingenious substitute for the aortic tourniquet, proposed by Mr. Davy, of London, has been successfully used in a number (eight at the last accounts) of amputations at the hip-joint. This consists of a rounded wooden lever, much like a large-sized rectal bougie, which is passed up into the rectum, when by elevating the outer end the inner one is brought to bear upon the common iliac artery of whichever side is desired. Hemorrhage is thus entirely controlled, without the danger, a real one in the use of the aortic compressor, of injury to important abdominal organs. So far as I am aware, this instrument (Davy's lever) has not yet been tried in this country.

The use of hot water as a hæmostatic in surgery may now be regarded as established, and it must be thought strange that a resource so simple, and at the same time so effectual, should have been so long unrecognized. With it the wounds made for ligation of arteries, for herniotomy, etc., may be kept as dry as if in a dissection of the dead body. A very great advantage of it, in large amputations,

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lies in the avoidance of the shock which cold water applied in like manner could not fail to produce.

Hemorrhage is an enemy which the surgeon should neither dread nor underrate; and with catch-forceps or serre-fines, catgut ligatures, and hot water, he may generally feel himself fully armed against it. Moreover, by having a wound thus rendered clean and dry before its closure, he can look with much more confidence for a rapid and permanent healing even of large cavities, than he could under less favorable circumstances.

I may mention the carbolized jute proposed by Dr. Weir, of New York, as an excellent addition to the surgical dispensatory. It is cheaper than the gauze which forms so prominent a part of the Lister dressings, and equally efficient as a protective.

It would be impossible, on an occasion of this kind, to pass over in silence the question to which I have already alluded as the question of the day—that of antiseptic surgery; and yet my limits forbid its discussion at any length. A few considerations only can be presented in regard to some of its aspects.

And first, I feel bound to protest against the assumption, on the part of some of the advocates of this system, that the practice of those who do not adopt it is "septic." No surgery which is worthy to be so called is septic; we are all striving to treat wounds antiseptically, though we may not choose the same way. It is not only in religious matters that there is a certain Pharisaism, a "thanking God that we are not as other men are," which can only prejudice the cause in which it is used.

Starting then with the admission that one of the great objects to be kept in view in all surgery is to prevent putrefactive decomposition, are we to regard Listerism as the one, or even as the best method of attaining this end? Is the air we breathe so full of poisonous germs that one square inch or less of the surface of a wound cannot be exposed to contact with it without the risk of fatal results? Two recent statements of Mr. Lister himself would seem to imply an affirmative to both these questions.

He stated that the opening of the knee-joint under his antiseptic precautions involved less danger to the patient than the removal of an ordinary fatty tumor from any part of the body without them. And in speaking of the fatal result of a case of excision of a mammary tumor, he stated that all went well for a number of days (I think it was over a week), when at one of the dressings, he "was grieved to see that the assistant having charge of the spray had failed" to keep one corner of the wound under its influence; that

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night the patient had a chill, and pyæmia manifested itself, with a fatal result.

One point may be conceded: there are certain portions of the body which cannot safely be exposed to the air, such as the cavities of large joints and of the serous membranes, which are really of the same nature. But must we also concede that these can only be kept surgically clean—antiseptically clean, if you please—by continual spraying with carbolic acid? And why does suppuration ever take place within these cavities, as it certainly does, without any admission of the external air at all? How can we explain the formation of an abscess beneath the mammary gland, or the occurrence of even pyæmia, from a contusion which does not break the skin? It cannot surely be asserted that the living tissues are more pervious to those terrible bacteria than the gauze or the mackintosh of Lister.

Let it be remembered that the whole atmosphere of a room in which the atomizer or spray-producer is at work must be more or less impregnated with carbolic acid. Thus the question becomes one of degree; and we are asked to believe that because the forgotten or overlooked corner of the wound just mentioned was not subjected to a strong enough carbolization, the patient's life was sacrificed.

A writer in the last volume of the *Guy's Hospital Reports*, recording some cases of surgical scarlatina, expresses the belief that but for the antiseptic dressing, the high temperature of the fever would have induced decomposition in the wounds, and the result would have been septicæmia.

The present aspect of this subject may perhaps be summed up as follows:—

The utmost degree of surgical cleanliness, in everything, hands, instruments, liquids applied, and above all, in the wound, is conducive to the best results.

Carbolic acid exerts a certain controlling influence upon the suppurative tendency in wounded tissues.

Putrefaction, whether of substances intrinsic to the body, or extrinsic to it but in contact with it, should be scrupulously avoided by every possible means.

In this statement, as it seems to me, both sides are treated, in legal phrase, without prejudice, and it remains for experience to show whether Listerism offers us the only, or even the best, method of carrying out accepted principles.

Perhaps I may be here allowed to say a few words in regard to a matter, which, in my own experience, has assumed a good deal of

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importance,—the oblique method of incising the skin in surgical operations. By dividing the integument in this way, we not only avoid the production of scars, but we obtain so perfect a closure of the wounds, and so exact an apposition of the cut surfaces, as often to have a perfectly dry healing. I have thus removed a large mammary tumor, and the entire wound was found healed firmly on the fifth day; there had been no rise of temperature, and no suppuration whatever.

Let me trespass upon your patience for a few moments longer, in calling your attention to a curious point of difference between this and other countries. No one who has had access to foreign journals can have failed to notice the prominent position given to subcutaneous osteotomy for deformities, and even to open operations of this kind since the introduction of the Listerian antiseptic system. Genu valgum, or knock-knee, is the main form of distortion which has been thus dealt with. In the *Lancet* for Sept. 6, 1879, there is reported the case of a boy 10 years of age, "affected with knock-knee, both legs forming an angle of 35° with the thighs, the distance between the heels when the patient was lying down being twenty inches." Now I have never myself met with anything approaching to such a condition as this, nor have I been able to learn from my professional friends that such a case had ever come under the notice of any of them. It would seem likely that there is something in the conditions of life which influences the occurrence of such abnormities, and makes them more common in one country than in another. Perhaps the much greater frequency of hernia, as well as of post-partum hemorrhage among other peoples, may be due to the same cause; of the fact that they so exist, I think there is abundant proof.

And now, Mr. President, I have come to the close of my allotted task. I recognize, in the intelligence of those who have so patiently given me their attention, the surest guarantee of kindly criticism.

There is to me something sublime in the united effort of the vast body of workers in our profession—in the earnestness of our battle with disease and misery; something that puts out of sight small and personal motives, and masses us together as devotees of a science which sets before us the highest rewards earth can offer. Well is it for us in this age that we have learnt the value of such association. A recent writer says: "Knowledge grows, but man stands still; that is to say, the intellect and powers of man are no greater now than they were in any of the known past ages; in the days, for instance, of Homer or of Plato, of Confucius, of Buddha, or of Moses;

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no more powerful to mould the material at hand, whereas the material has vastly increased."

Is it not the consciousness, although perhaps dim and undefined, of this truth, that has so developed the spirit of association in this wonderful age of discovery and progress? Only thus could our past successes have been wrought; and in no other way can we march on to further victories.

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HYPERDISTENSION OF THE AIR-CELLS AS A THERAPEUTIC MEASURE.

By J. SOLIS COHEN, M.D.,
PHILADELPHIA.

The object of this brief paper is to call the attention of the members of the Society to a handy method of forcing compressed air into the lungs in cases where resort to that agent is desirable.

The indications for the use of inspirations of compressed air are both direct and indirect. Direct, when assistance is required in the access of atmospheric air to occluded bronchioles and air-vesicles, or to increase the actual air-pressure in the lungs, so that they can be expanded to an extent greater than can be accomplished by the most powerful voluntary effort of inspiration that the patient may be capable of exerting. Indirect, when the object is to increase the pressure upon the aortic system, augment the amount of blood in the arteries, and thus divert excess of blood in the capillaries and venules, in the relief of congestions and hypersecretions dependent upon accumulations of blood at the peripheral portions of the circulatory system.

The indications against the use of inspirations of compressed air are: existing excess of pressure in the aortic system; atheromatous degeneration of the arteries; congestions of the arterioles in important peripheral organs, as the brain and uterus; and tendencies to hemorrhages, whether interstitial or from mucous outlets.

The direct influence of inspirations of compressed air may be invoked advantageously in instances of inefficient expansion of the lung in early or suspected pulmonary phthisis; in the dyspnœa of spasmodic asthma; chronic bronchitis, pleuritic effusion, and pulmonary emphysema; as well as in other forms of dyspnœa from obstruction; and the hyperstatic stasis that occurs in low febrile conditions, and the like. But the most useful general application that can be made of it is as a mechanical expectorant in the discharge of products of secretion, suppuration, and exfoliation, accumulating in the bronchioles and in the air-cells. Here, often, the aid

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of a current of slightly compressed air will quickly dislodge the masses of viscid sputa, and provoke their prompt expulsion by cough. The advantage of a mechanical expectorant which clears the passages directly and immediately, and without unfavorable influence on any of the organs, renders its use preferable, in many instances, to medicinal expectorants which act indirectly and after prolonged intervals, and at the same time have the tendency to nauseate the stomach and impair the appetite for food.

The ordinary apparatuses for administration of inspirations of compressed air are cumbersome, stationary, and expensive. They do not, therefore, commend themselves to the patient, or to the physician in general practice. A convenient and inexpensive substitute, capable of rendering service as an expander of the air-cells in insufficient dilatation, and of acting as a mechanical expectorant in the conditions indicated, was suggested to me, little more than a year ago, by Dr. Gadbury, of Yazoo City, Mississippi, in the rubber bulb and tube such as is supplied with many forms of spray producers. This apparatus, which costs but half a dollar, can be supplied to any patient too poor to purchase it, and will enable the invalid to pump his lungs free of secretion several times a day, or as frequently as may be desired. It is used in the manner following: The patient makes as deep a voluntary inspiration as possible, so as to distend his lungs with air; he then closes his lips upon the tube, compresses his nostrils with one hand, and pumps additional air into his chest by a series of compressions of the bulb; thus hyperdistending his air-cells. When the compression becomes uncomfortable, or the need of an expiratory effort is felt, the process is suspended to allow of the expulsion of the air, and is then resumed; several repetitions being made in succession. In phthisis patients with nummular sputa, large masses are often expectorated immediately or within a few minutes after their disturbance by the column of compressed air; and great relief is experienced until respiration becomes disturbed by reaccumulation, when the same means may be resorted to for their prompt and easy expectoration, without the exhausting effects that often follow spontaneous violent efforts at coughing. A similar result often follows in chronic bronchitis of whatever variety.

The amount of pressure exercised on the volume of air in the tube of this little insufflator would be too great for safety were it not that it is immediately diffused over the large volume of air in the thorax; so that the pressure on the entire mass is diminished. It is well established that a pressure of more than half a pound should not be used in administering inspirations of compressed air,

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and that in many instances, even less than half this amount is all that is desirable. Although there is no means of measuring this pressure in this insufflator, a proper amount can be estimated in each case, by noting the effect; and the patient can be cautioned against any attempt at overdoing it in the hope of facilitating its results.

I am at present experimenting with a cheap form of compression pump,—that used in Burgess's mechanical blowpipe, which I have had attached to a reservoir of sufficient capacity, and furnished with a pressure-gauge. As the pump is worked with a pedal, it requires very little exertion, and the eye on the pressure-gauge will guard against any excess. The apparatus can be furnished for ten dollars, which is not beyond the means of any practitioner who may have a strong inclination to use it. In order to gauge the amount of compression, a small steelyard can be attached, or an inexpensive form of valve weighted with as many ounces as may be required to limit the pressure which it may be desirable to use.

I have had the testimony of a number of private and clinical patients as to the relief afforded by the use of the hand-ball compressor, which, if there is any demand for the appliance, should be made rather longer so as to compress a greater volume of air; and I would be very glad if the members of the Society would test its efficacy for themselves upon their own patients.

The therapeutic value of any agent harmlessly capable of clearing the air-cells and smaller bronchi of accumulations, is sufficient to commend it to the consideration of the practitioner as an agent in his management of cases in which such an effect is desirable.

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SOME PRACTICAL REMARKS ON THE TREATMENT OF ASTHMA.

BY WILLIAM PEPPER, A.M., M.D.,

PROF. OF CLINICAL MEDICINE IN THE UNIVERSITY OF PENNSYLVANIA.

DESPITE all that has been written and said about asthma its pathology remains unsettled, and its treatment unsatisfactory. Very much of this uncertainty has resulted from a want of proper attention to the essential nature of the disease. A battle royal has been waged for years over the exact *modus operandi* of the asthmatic attack, but far less study has been given to the far more important question of the true underlying conditions that render such attacks possible. We must, indeed, distinguish clearly between asthma and asthmatic attacks; or if by asthma we are to understand only the paroxysms of dyspnœa, we must have some other term to describe the essential condition that exists in the intervals between the paroxysms and renders their occurrence possible. Thus in epilepsy, the convulsive attacks do not constitute the disease, but there is an underlying morbid condition—that is plausibly believed to be a special susceptibility of certain sympathetic ganglia or other nerve centres—that is the true disease of which the convulsions are but the most prominent and striking symptoms. So too in asthma, we are to look for the real disease, not only in the paroxysms, but in the pathological condition that precedes and predisposes to them. This is not the proper occasion to enter into a minute discussion of the various arguments bearing on this point, and I must limit myself to saying that the essential factor in asthma seems clearly to be a condition of morbid sensibility or of actual disease of the nervous filaments supplying the ramifications of the bronchial tubes, and perhaps of the thoracic ganglia of the sympathetic.

If such a state of morbid irritability should exist, however induced, it would be easy to understand how a paroxysm of spasmodic dyspnœa might be produced either by reflex irritation (as from the stomach) or from direct irritation (as from sudden congestion or catarrhal inflammation of the bronchial mucous membrane). As a

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matter of fact, the vast majority of asthmatic paroxysms are induced by sudden congestion and swelling of the bronchial mucous membrane occurring in persons who present the state of morbid irritability of certain nerve-areas that I have mentioned. But it is this latter irritability that leads a certain degree of bronchial obstruction, quite tolerable by other subjects, to induce a violent paroxysm of asthma. So too it is necessary to recognize clearly this nervous element to explain the paroxysms that occur in asthmatic subjects under circumstances that render it improbable that a primary sudden congestion and swelling of the bronchial mucous membrane should have acted as the exciting cause. Reference is made, for example, to sudden attacks occurring after eating some indigestible substance, while the asthmatic is entirely free from any manifestation of his disease and not exposed to any cause of bronchial irritation.

It is easy to trace here a close analogy between asthma and spasmodic croup. It is a familiar fact that certain children present a morbid irritability of the nerves of the larynx that will cause an attack of croup to follow the slightest congestion or catarrhal irritation of the laryngeal mucous membrane, and that in such subjects severe attacks of croup may follow mere reflex irritation.

The special nervous susceptibility that lies at the root of asthma may be established in various ways. It appears to be sometimes inherited or congenital, but more frequently it is acquired. The causes that lead to its development are very varied and numerous. Among the most common are the action of separate attacks of bronchial congestion which gradually induce a morbid state of the bronchial nerves; the influence of severe acute illness, as typhoid fever, whooping-cough, or pneumonia; excessive exertion of body or mind, exhausting and depressing care and anxiety, severe nervous shocks, etc.

Of course, the specific causes of so-called hay asthma and similar affections are not to be referred to here. It is often observed that patients with obstructive disease of the heart become asthmatic, and as repeated or continued bronchial congestion has certainly an important influence in disposing to asthma, it is well to note carefully here the relations of heart-disease or simply of failure of heart-power to the condition we are considering. So, too, the occurrence of asthma in connection with organic disease of the kidneys is often observed; but the relation here may be of a complex nature.

However the nervous susceptibility may originate, it renders very intelligible the occurrence of asthmatic paroxysms, which may be

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induced by mere reflex irritation, or far more commonly, as already stated, by sudden congestion and swelling of the bronchial mucous membrane. These preliminary remarks have been made on account of their bearing on the practical questions concerning the treatment of asthma. This comprises the radical treatment of the disease—that is, the attempt to cure the underlying morbid condition—and the palliative treatment of the paroxysms. A glance at the varied causes; at the complex disturbances of function and nutrition often involved; and at the actual local lesions of the bronchial tubes or pulmonary tissue frequently associated, will explain why no one remedy or plan of treatment can ever be successfully applied to the radical relief of even a considerable proportion of cases of asthma.

It may perhaps enable me to be more brief in my remarks on the varieties of treatment required by different cases, if I sketch the two classes of asthmatics which comprise most of the cases that have come under my notice. These classes might be called respectively the plethoric or congestive and the anæmic.

The patients of the former class often present the appearance of full health, or indeed show a marked tendency to plethora, with high color in their cheeks, and a considerable degree of corpulence. They may possess considerable muscular vigor and nervous energy, or, on the other hand, they may be flabby and inert. They are usually rather high livers, eat largely and rapidly, and perhaps use alcohol freely; but, on the other hand, their corpulence and plethora may result less from excess than from sedentary habits. In either case there is a marked tendency to congestion and swelling of the liver; digestion is not well performed, the bowels are sluggish or variable, and the urine is usually high colored with an excess of urates. The chest walls are apt to be heavily covered with fat, and there is a disposition to shortness of breath on exertion. The circulation is rarely free and vigorous, but usually the heart's action is labored; and often the skin is highly susceptible to sudden changes of temperature, or to draughts or damp. Now, if in any such subject a tendency is established to bronchial congestion, repeated attacks will readily occur and will gradually establish a morbid condition of the bronchial mucous membrane, with perhaps a morbid irritability of the nervous filaments. Once let this state be developed, and paroxysms of asthma will occur from the most trifling exciting causes. Bronchial catarrh gradually becomes more and more severe; varying degrees of vesicular emphysema ensue, and the chest undergoes the characteristic alterations. Such patients present the most typical illustrations of asthma, and many of the worst cases I have ever met with have belonged to this group.

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The other group of asthmatics, for whom I suggested the name of anæmic, present very different features. The form is usually slender, and more commonly the height is above the average. The chest is shallow and poorly developed, or may present the phthisical characters. The body weight is decidedly below the standard, and the muscles especially are poorly developed. The skin is delicate, soft, and pale, and a notable degree of anæmia usually exists. The heart's action is weak and irritable, and the peripheral circulation is poorly maintained, the hands and feet tending to be cool. Fatigue is readily induced, and exertion often causes dyspnœa and palpitation of the heart. Digestion is readily deranged, and the appetite is often poor and capricious. Extremes of temperature, sudden changes of weather, damp or draughts are very badly borne, and such a person takes cold on the very slightest provocation, and bronchial catarrhs are of frequent occurrence. Asthma is readily established in such patients, as indeed the tendency to spasmodic affections not rarely precedes any actual local bronchial trouble. Such cases are of sufficiently common occurrence. At times the feeble type of nutrition and the asthmatic tendency date back to birth or early childhood; while, in other instances, they may be traced to some severe illness, or to protracted overwork, or to some grave nervous shock. The general sensitiveness of system, the atony of the skin, and the susceptibility to renewed bronchial catarrh with asthmatic paroxysms that such patients may develop, almost exceed belief. Occasionally phthisis ensues, but more frequently emphysema (atrophic or hypertrophic) occurs, the heart fails seriously, and the case assumes very grave features.

Before alluding to the principles involved in the treatment of such widely different cases, I may be allowed to publish the brief notes of a few illustrations taken from my case-books.

CASE I.—*Asthma of long standing, with marked bronchial congestion; plethora with atony of the system. Recovery.*

Levi K., æt. 38, seen Oct. 1877, in consultation with Dr. Bloom, of Martinsburg, Blair Co. Has suffered from asthma from the age of 15 years; apparently induced by exposure to damp and cold. At first he only suffered in the fall, but lately has suffered throughout the year with a good deal of bronchial cough, habitual dyspnœa on exertion, and with very frequent asthmatic attacks. These occurred after changes in the weather, and would frequently last over one or several days. He was of full habit and plethoric. On physical examination the thorax presented impaired mobility, exaggerated resonance, and prolonged expiratory murmur with sonorous and sibilant râles. Vital capacity, 2000 c.c. He returned to his

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home and continued to suffer, receiving very little relief from any treatment. He came to Philadelphia again, January, 1880, and remained two months under my care. His height was 5 ft. 8 in., his weight 207 lbs. Vital capacity as before, 2000 c. c. A very careful and restricted diet was directed, sugar and fat being excluded, and farinaciæ allowed in moderation. Regular cold water sponging, with vigorous frictions and systematic gymnastic exercise, and increasingly long walks were insisted upon. Carlsbad water, half a pint thrice daily, was directed; and strychnia in doses varying from grain $\frac{1}{32}$ to grain $\frac{1}{20}$ t. d., given with six drops of dilute nitro-muriatic acid was directed. Daily expirations into rarefied air by Waldenburg's apparatus was practised. He lost about 20 lbs. in weight; the vital capacity increased to 3800 c. c.; dyspnœa disappeared entirely, and he became able to walk six or eight miles without difficulty. All trace of bronchial irritation passed away, and the asthmatic attacks ceased entirely. He returned home quite well, and has remained so.

CASE II.—*Asthma of great severity; marked bronchitis; hectic fever and emaciation; anæmia. Recovery.*

Mr. McP., age 48, engaged in a saw-mill, and a very energetic hard-working man, contracted a severe laryngitis from exposure at the age of 26 years, followed by aphonia for six weeks. After that he was subject to colds on the slightest exposure, on changes of weather, etc. Asthmatic attacks first appeared in 1873, at the age of 43 years. In the winter of 1878, before consulting me, he again became very ill, losing 30 pounds of flesh in a few months. There were anorexia, very heavily coated tongue, and constipation. The cough was very troublesome, the sputa copious and purulent, and the asthmatic attacks were very violent and frequent. He had been unable to lie down for some months. Exertion caused intense dyspnœa, and his debility was so great that he could scarcely walk at all. His sleep was very imperfect. The chest was not much altered in shape, but resonance was excessive, inspiratory murmur feeble, expiratory murmur much prolonged; numerous dry and moist râles existed all over both sides. The vital capacity was 1250 c. c.; his height was 5 ft. 11 in.; his weight about 130 pounds. Treatment extended from the middle of March to the middle of June, 1878. It consisted in a very carefully regulated diet, and extreme attention to hygiene, including inunction at first, and later, salt water sponge baths, followed by friction and the regular use of dumb bells. Expiration into rarefied air by Waldenburg's apparatus was used on alternate days during all this time. Until digestion improved, cinchonidia and strychnia,

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with muriatic acid, were given after meals, with marked advantage. The iodide of potassium, grs. ij to grs. v, with the bichloride of mercury, gr. $\frac{1}{48}$ to gr. $\frac{1}{25}$ t. d. was given for a considerable time, the use of strychnia being continued. Eryodiction was also tried with advantage. He rapidly regained flesh and strength; the evidences of bronchitis diminished and finally disappeared; and the asthmatic attacks soon ceased to occur. The vital capacity increased to 4100 c. c., and by June 15, 1878, he was able to return to active work. He has continued well up to the present time, May, 1880, although his wife reports that he has this winter been overworking and exposing himself extremely, and that she fears his susceptibility to changes of weather is returning.

Case III.—Alice ——, age 8 years, was seen in consultation with Dr. H. Clark, of Woodbury, N. J. Born of healthy parents, she had been nursed to the age of two years. She showed some signs of rickets during the first year of life. At the age of four she had a severe attack of spasmodic croup, and after that was subject to frequent attacks of bronchitis, associated with severe asthma. At first there were only a few annually, but for the past year they had followed each other with scarcely any intermission. She always suffered more during summer than during winter. The attacks usually began with a simple catarrh, with coryza for a couple of days, followed by a wheezing cough, and nocturnal attacks of asthma. There is habitual dyspnœa on exertion, and lately there has been developed a severe cough with purulent sputa, feverishness, loss of appetite and strength. She is tall and delicate looking, with high rounded shoulders, and long shallow chest. The upper part of the thorax is somewhat distended. The expansion of the chest is limited. The percussion resonance is exaggerated, the vesicular murmur is impaired, and over the upper part of the chest expiration is prolonged. Bronchitic râles are heard posteriorly at the lower part of the lungs.

She was ordered careful diet and clothing; salt baths daily; regulated gymnastic exercise with her arms, and the following medicines:—

℞. Potass. iodid. gr. ij;
Potass. bromidi, gr. v;
Syr. ferri iodidi, gtt. v;
Syr. tolutani, gtt. xxv;
Aquæ, f℥ss.
Ft. sol. S. t. d.

The use of this was followed by improvement in appetite and strength, and by a marked diminution in the frequency and severity

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of the asthmatic attacks. As, however, the cough continued quite severe, with abundant loose mucous râles throughout the chest, the treatment was changed to the following:—

℞. Syr. phosphat. comp. f℥ij;
Elix. calisayæ,
Aquæ, āā f℥j.—M.
Dose. Two teaspoonfuls in water before meals.

And to relieve the cough:—

℞. Ammoniæ muriatis, gr. lxxij;
Syr. senegæ, f℥ss;
Tr. hyoscyami, f℥iss;
Ext. pruni Virg. fluid. f℥ss;
Syr. zingiberis, q. s. add f℥iij.—M.
Dose. A teaspoonful in water three or four times in the 24 hours, according to the severity of the cough.

Under the use of these remedies, her improvement was rapid and continuous, and for the past year and a half there has been scarcely any tendency to bronchitic attacks. Her frame has developed, and the shape of the thorax has improved so as to confirm the evidence of the physical signs that the emphysema is gradually disappearing.

I have selected these three cases out of a large number, not because they exhibit a higher degree of success in treatment than can always be obtained, but because they illustrate the use of various remedial measures that seem to me most valuable in the treatment of asthma.

Among the indications that are most frequently presented the following may be mentioned:—

1. Restoration of tone to the skin and muscles;
2. Relief of congestion of the liver and of gastric catarrh;
3. Improvement of the power of the heart, and of the peripheral circulation;
4. Removal of morbid conditions of the bronchial mucous membrane, and of the morbid irritability of the nerves supplying the pulmonary tissues;
5. Repairing the vesicular emphysema that has resulted from the asthmatic attacks and the persistent bronchitis.

Too much importance cannot be attached to a systematic treatment of the skin in cases of asthma. In the vast majority of cases, the first attack of catarrh which prepares the way for the subsequent asthmatic trouble is due to some morbid impression upon the skin, checking its circulation and driving the blood back on the lungs, and powerfully affecting the cutaneous nerves which communicate excito-motor impressions to the nervous centre of respi-

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ration, and thus perhaps tending to induce a state of morbid irritability of the nerves of respiration.

Exposure to severe changes of temperature or to strong draughts acts in this way; but even worse effects on the skin are caused by the steady influence of damp air and damp ground. So soon as the tone of the skin—including its venous and circulatory supply—becomes impaired, the most trivial causes suffice to induce renewed bronchial congestion or catarrh, with or without the asthmatic paroxysm. It would seem, therefore, that anything like a radical cure of asthma is impossible in most cases without effecting a complete restoration of the tone of the skin. In many cases, especially where the patient resides in a damp, low locality, a change to a dry, bracing climate is the surest and quickest way of effecting the desired improvement. Of course, it is not only in this way that change of climate acts in relieving asthma. There is, further, the invigoration of the nervous system; the improvement of nutrition; and the powerful influence of a climate of different altitude, in case a mountain resort is chosen, upon the respiration. I can only allude here to the idiosyncrasies that occasionally exist among asthmatics in this respect, so that certain patients can find only limited areas within which they can live free from attacks. Change of climate is, then, a remedy of great value in asthma; and where it can be resorted to, and a proper selection of residence is made, often produces remarkable results. Apart from expense and inconvenience, however, there are certain disadvantages that, as a rule, attach to it. The worst of these is that, after relief has been thus secured, it is often found impossible for the individual to return to his former home without making himself peculiarly liable to a recurrence of the disease. Another is that, after residence for a certain time in a climate where complete relief has been at first obtained, it is not very rare for the susceptibility to asthma to be redeveloped. It is probable, however, that this is sometimes, at least, due to the adoption of injudicious modes of living, or to neglect of necessary precautions, and that a more careful regimen might prolong the immunity indefinitely. Still, whenever relief can be secured without change of climate, it is preferable; for this reason, in addition to others, that the patient, when relieved, will have learned those rules of regimen and hygiene that will enable him to prevent recurrences in the future. I am satisfied that this is more frequently practicable than seems to be generally believed.

The use of systematic bathing, accompanied by vigorous friction of the surface, is a most valuable remedy in promoting improved tone of the skin. The form of bathing must be selected with careful

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reference to the powers of reaction of each special case. In very debilitated subjects, I have found great advantage from the use of daily inunction for some weeks, until it seemed safe to venture on cool salt-water baths.

Equally essential is regular and carefully arranged exercise. The amount and character of such exercise must, of course, be adjusted to the muscular and respiratory power of each case; but in order to secure and maintain an invigorated tone of system, and a more healthy state of the circulation and secretions, it is important that as much exercise as possible shall be taken. Systematic light gymnastic exercise should be arranged indoors, if only by means of dumb-bells or Indian clubs; while outdoor exercise, by horseback riding, walking, or rowing, should also be secured. The respiratory muscles are naturally those that most require strengthening, and this is best accomplished by such exercises as above mentioned; and, in addition, by the carefully graduated use of Waldenburg's pneumatic apparatus, the use of which will be more particularly referred to when speaking of the relief of emphysema.

In my experience, next to the skin and muscles, the stomach and liver have most frequently demanded attention. In cases of the congestive type, the establishment of more free secretion is essential; while in the anæmic, atonic cases, restoration of muscular and nervous power to the stomach is specially called for. In all cases a carefully regulated diet is essential. The close connection between disordered states of the stomach and asthmatic attacks is a very familiar fact, and many cases of asthma are remarkably benefited by rigid dietetic management alone.

In cases where abdominal plethora is marked, the regular use of a mildly laxative saline water, such as Carlsbad or Bedford, with the occasional administration of a mild dose of blue mass, has seemed the most beneficial treatment. In cases of the other type, while an occasional deobstruent laxative, such as blue mass, may be needed, the remedies from which I have derived most benefit are the mineral acids, and particularly muriatic or nitromuriatic, given in combination with quinia and strychnia. I think especial importance is to be assigned to the use of this latter remedy, not only for its effect on the digestion, but as a most powerful tonic to the respiratory nerves and muscles. In order to develop its best results, it may be given at first in rather small doses, which may be gradually increased until the limit of tolerance is approximated. It has seemed to me that, while the action of the stomach and liver was improved during the use of the acid solution of quinia and strychnia, the influence of the latter drug is further to be seen in the increased

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ease with which the bronchitis or bronchial congestion yields to treatment, and in the lessened tendency to asthmatic paroxysms.

In cases where anæmia and atony of the general system are pronounced, with the usual accompaniment of feeble and susceptible circulation, I have seen great advantage from the use of a pill containing strychnia, digitalis, arsenic, and iron in suitable doses, after the digestion had first been corrected by careful diet and regimen.

The use of digitalis is, indeed, very often indicated on account of the weakness of the heart, more especially of its right side, which suffers severely, not only during the paroxysms, but from the continued obstruction to the pulmonary circulation, caused by the emphysema which in greater or less degree is so frequent an attendant on asthma.

Nothing will afford more marked relief to the circulation, however, than the removal of the various local congestions that increase the embarrassment of the heart. Allusion has already been made to the great value of diet and certain remedies in this connection; but I would add that, in cases where bronchial or gastro-hepatic congestion is specially marked or persistent, the regular use of dry cups, at intervals of two or three days, over the back or around the base of the thorax, has been followed by great relief.

So far, no allusion has been made to remedies specially directed to the morbid condition of the bronchial mucous membrane. The truth is that in very many cases of asthma, if only by a rigid attention to hygiene and suitable regimen, the constant renewals of bronchial congestion can be prevented, the mucous membrane will gradually regain its normal state. The great degree of comfort enjoyed by many asthmatics in the intervals between their bronchitic attacks, is evidence that very often the morbid condition present is due only to congestion and irritability. But, on the other hand, there is frequently a considerable degree of subacute bronchitis that demands special treatment. In such cases, the evidences of bronchial obstruction from swelling of the mucous membrane, and from the presence of morbid secretions, are persistent, though very variable in degree. It is in such cases that, in conjunction with the use of strychnia, great benefit may be derived from iodide of potassium with or without small doses of corrosive sublimate, or of one of the alkalies. The rapid popularity acquired by iodide of potassium in the treatment of asthma, and the neglect with which it seems to be again threatened, correspond with the experience of many other valuable remedies, and depend on the fact that it has been recommended indiscriminately for all cases of a singularly complex disease, with-

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out sufficient reference to the fact that its true value is limited to meeting one special indication when presented.

In other instances the copious muco-purulent secretions from the bronchial mucous membrane suggest the use of alterative expectorants. Among these, I would mention only copaiba and eryodiction, as having given specially good results in my own experience with such cases.

When more or less constant spasm of the bronchial tubes exists, the addition of bromide of ammonium, or of one of the other bromides, to the remedies above mentioned is certainly desirable. The continued use of full doses of any of the bromides however—just as of any other sedative—seems to me injudicious in the treatment of all cases where the state of the system is markedly atonic and depressed. Indeed I have seen numerous instances where the temporary relief furnished had been far more than counterbalanced by lasting depressing effects. I should therefore strongly recommend that the use of bromides be only occasional and for a short period. In all cases where the frequent recurrence of the paroxysms and the intervening distress are such as to suggest the continuous use of sedatives (opiates, chloral, bromides, etc.), some radical change in the hygienic conditions of the patient must be made, for the habitual use of any remedies of this class should never be sanctioned.

At times, and particularly when digestion is easily deranged, inhalation may be substituted advantageously for all internal administration of remedies directed to the bronchitic condition. I shall not attempt to indicate the various forms of apparatus, or all the substances that may be found of service in different cases. Carbolic acid and iodine in my own experience have given the best results. I would, however, ask special attention to the value of Waldenburg's pneumatic apparatus, since it enables us to combine the use of pulmonary gymnastics, as it may be styled, with thorough inhalation treatment.

The use of this apparatus requires more extended reference. While feeling compelled to admit that the claims advanced for it in the treatment of phthisis, heart disease, etc., are unfounded to a great degree, I can confidently testify to the great advantage to be derived from its systematic use in many cases of asthma. I have used very frequently both the expiration into rarefied air, and the inspiration of compressed air, usually separately, sometimes associated in the same case. Far more good has followed the former treatment, the expiration into rarefied air. It must be pursued every day steadily and systematically for a considerable period—thirty days or more—in order to obtain the positive relief that often fol-

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lows its use. The rapid and marked increase in the active respiratory capacity noted in Case II. is by no means an extreme or unusual instance. Of course, however, the whole improvement is not to be attributed to the mechanical effects of this treatment in favoring a more healthy contraction of the pulmonary tissue, and a return of its normal elasticity. In cases where such improvement is secured, there is at the same time progressing the removal of thickening of the mucous membrane, and an increase in vigor of the respiratory muscles due to other causes. But we may, I believe, safely allow a considerable value to the systematic use of this form of pulmonary gymnastics in suitable cases. The leading indication for this mode of treatment is the existence of low respiratory capacity, due not so much to spasm, or to swelling of the mucous membrane, as to vesicular emphysema or enfeebled tonicity of the respiratory muscles. Its use should of course be associated with systematic use of light gymnastics, especially for the muscles of the shoulders, chest, and back.

It is not my intention at present to enter into a full discussion of the treatment of the asthmatic paroxysm. Nearly every old asthmatic settles down on some method or some remedy which he has found to give him relief; and the extraordinary variety of remedies thus used suffices to show that there are simply certain general indications to be met, and that all remedies capable of meeting these indications may be of service. These indications appear to be: to remove any cause of reflex irritation; to relieve as promptly as possible the congestion of the bronchial mucous membrane; to allay the spasm of the irritated muscles; to increase cardiac power if heart failure appears to be a factor in maintaining embarrassment of the pulmonary circulation.

All are familiar with the immediate effect of an emetic in breaking up a paroxysm of asthma when it has been induced by the presence of indigestible and irritating matters in the stomach. But, in many other cases, where no such reflex irritation exists, a mild unirritating emetic will afford great relief by relaxing spasm and favoring free secretion. If then, a heavily coated tongue, and fulness and discomfort in the epigastric region indicate gastro-hepatic congestion, a simple emetic may be given; or if this is not thought desirable, a moderate dose of blue mass followed by a mild saline laxative. When the asthmatic attack is severe and protracted, the greatest care should be given to the state of the digestion.

To relieve bronchial congestion, prompt and thorough cupping on the back of the chest, especially around the roots of the lungs, is a very efficient remedy. Generally, the cups should be dry; only in

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cases where marked plethora exists, and where the vascular congestion is intense, should any wet cups be advised. Another derivative often found of use is a hot mustard foot-bath. Remedies that favor free secretion from the bronchial mucous membrane are useful, especially as they may tend to allay muscular spasm. Antimony and lobelia are among the most efficient of these, and may be given in suitable doses in combination with alkalies, which act in a similar way.

The relief of the muscular spasm constitutes the most urgent and prominent indication, although it should never be lost sight of that there is also a bronchitic element that demands attention at the same time. The most powerful and generally applicable remedy for allaying the muscular spasm is opium. A hypodermic injection of morphia, better combined with a small amount of atropia; or a suppository of opium and belladonna, will usually act better than an opiate by the mouth, and will be less likely to cause derangement of the stomach. Where the attacks are frequent, and it is probable that long treatment will be required, I confess to a strong objection to beginning the use of hypodermic injections for fear of encouraging the formation of a habit of using them; or to giving opium in any recognizable form.

Various inhalations act very promptly in allaying muscular spasm. Nitrite of amyl gives speedy relief in some instances; but perhaps in a larger proportion of cases, the use of various medicated cigarettes is found serviceable. These vary greatly in their composition, but contain for the most part nitrate of potassa in conjunction with powerful sedatives and antispasmodics. So also various sedative remedies may give relief when given internally. The pure sedatives and antispasmodics, as the bromide salts; the relaxing and nauseating sedative expectorants, as lobelia and antimony; and chloroform and the ethereal preparations, may be given in various combinations with great advantage in many cases.

I have obtained excellent results from the following combination:—

℞. Ammonii bromidi, ʒij ℈ij;
Ammoniæ muriatis, ʒiss;
Tr. lobeliæ, fʒiij;
Sp. etheris comp. f℥j;
Syrupi acaciæ q. s. ad f℥iv.

S. Dessertspoonful in water, repeated every hour or two, according to severity of the attack.

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ADDRESS IN HYGIENE.

By BENJAMIN LEE, M.D., Ph.D., F.A.A.M.,
OF PHILADELPHIA.

On the 28th day of May, 1879, a bill passed the House of Representatives of the United States of America, by the decisive vote of 64 to 19, authorizing the appointment of an Inspector of Plumbing in and for the District of Columbia It read as follows:—

Be it enacted, etc., That there shall be appointed by the commissioners of the District of Columbia, on recommendation of the health officer, an inspector of plumbing for said District, whose duty it shall be, under direction of the health officer, to inspect all houses in course of erection, and pass upon the plumbing and sewerage of said houses. And the health officer of the District of Columbia is hereby authorized, under direction of the commissioners, to execute and enforce regulations governing plumbing, house-drainage, and the ventilation of house sewers; and any person who shall neglect or refuse to comply with the requirements of the said regulations when promulgated, shall be punishable by a fine of from twenty-five to two hundred dollars for each and every such offence, or in default of payment of fine to imprisonment for thirty days.

Before the vote was taken a communication was read from Smith Townshend, M.D., the intelligent and energetic Health Officer of the District, explaining the reasons for the necessity of the appointment of such an official, which seems to have been so conclusive in the minds of the members of the House that they adopted the bill by the large majority above mentioned, almost without discussion. The following extracts from this communication will, I trust, prove equally convincing to your minds.

After adverting to the fact that the necessity for an inspection of all plumbing work was witnessed by the fact that at that time efforts were being made both in the General Assembly of New York and the City Council of Baltimore to get legislation covering the subject, Dr. Townshend went on to say, "There is no class of work attendant upon the building of a structure intended for use as a human habi-

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tation which needs such careful supervision in the interest of the health and lives of those who may occupy it afterward as does the work of the plumber. No fact rests upon a broader and more substantial basis of truth than that the gaseous emanations from decomposing sewage, commonly called sewer gas, are a fruitful source of disease."

Whatever the agency by which it works, we know that it comes with the power and potency of death. Escaping into the free atmosphere, its deadly power is quickly destroyed by the oxidation of its organic poisons; but when it mingles with the confined air of our unventilated living and sleeping rooms, it retains its deadly power long enough to do its work effectually.

Dr. Mapother, of Dublin, an eminent authority, states that there occur annually in England one hundred and forty thousand cases of typhoid fever, of which twenty thousand terminate fatally, which are clearly traceable to defective drainage and sewer-gas poisoning; and yet typhoid fever is only one of a long list of prevalent zymotic diseases.

Baylis, in his valuable work on house-drainage, says:—

"If we look for the cause of the large mortality from zymotic diseases in our cities, we find it principally in sewer-gas poisoning. Other causes operate to swell the total, but to bad plumbing work we may attribute the prevalence of pythogenic pneumonia, peritonitis, inflammatory rheumatism, typhoid and malarial fevers, croup, diphtheria, and many kindred diseases which are almost epidemic in all our large cities.

"Unfortunately for the progress of sanitary reform, the difference between good and bad plumbing work is usually so slight as to escape the notice of any but a trained expert, but it is commonly great enough to exert an active and far-reaching power for mischief."

He then goes on to describe the pipe systems of an average New York and Washington house of the better class, and draws the conclusion that, "in short we find every condition so favorable to sewer-gas poisoning, that we no longer wonder at the great mortality from diseases of pythogenic origin. As the plumbing work of our houses is commonly done, it would do better for most of us if we had to bring our water in buckets from a public hydrant, and carry our waste to the culvert at the nearest street corner.

"The plumber's work is covered by the builder and at once hidden from sight. In a few months, sometimes weeks, the occupant of the house complains of an obstructed sewer, a leak in the soil pipe, a troublesome odor that cannot be accounted for, or some other of the numerous evils that follow in the wake of 'scamped' plumbing.

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"The inspector investigates and finds a pipe of insufficient size, the joints put together with common mortar instead of cement, improperly laid, so that joints have opened; a pipe perhaps broken in the laying and left with an opening for escape of gases; no trap perhaps under sink or closet, or the bath-tub connection with soil-pipe below the trap."

I call particular attention to the defects here particularized because I shall hope to convince you, farther on, that New York and Washington are not the only cities on this continent where a precisely similar state of things exists; that it is as true in Philadelphia as it is in Washington, that "the finding of defects in the private sewers of our houses is of every-day occurrence." When I shall have put you in possession of the facts on which I base this assertion, if you are not ready to endorse the following remark of a predecessor of Dr. Townshend in the health office of the District, I shall feel that it is simply because I have not had sufficient skill to place these facts before you in their most convincing light. That gentleman said, referring to a law of the same nature as that which I have just read,—"That such a law does not stand prominent upon the pages of the code of every city is a disgraceful reproach upon the intelligence and civilization of the present age."

The first case to which I ask your attention was most thoroughly and ably reported to the College of Physicians of Philadelphia by Dr. William V. Keating of that city. Its medical history I shall give in the briefest possible space.

Four ladies returned to the city, after a summer spent among the mountains, where no cases of typhoid fever had occurred, during the latter half of the month of September, 1878. Their residence, which was a perfectly new house (No. 2216 Spruce Street) in a fashionable locality, had been tightly closed for two months, and was not thoroughly aired before they re-entered it. At intervals, varying from three days to three weeks, they were seized with febrile symptoms, which gradually developed into true typhoid fever. Two of these unfortunate ladies died. The lives of the other two were probably saved by removal to private rooms at St. Joseph's Hospital, but their health was permanently impaired. Now for the sanitary conditions of this new mansion, "replete with every modern convenience." When Dr. Keating began to suspect the true nature of the disease in the first case, he inquired of the patient in regard to them, and was informed by her that she had made every possible inquiry from the agent before renting the house, and had been assured that every attention had been paid to secure a thorough system of drainage. "To ease my apprehensions,

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however," says the doctor, "as she knew that I was very critical on this point, she determined to have it again inspected."

On the following Tuesday, September 24, I was assured by herself and niece, Miss H. V., that they had sent for some one then employed, as I understood, in attending to the plumbing in a new row adjacent to theirs, to inspect the premises; that this individual had accompanied Miss H. V. into the cellar; had shown her a trap which, he told her to mention to the doctor, rendered the house perfectly secure; and had declared that as he had superintended the construction of these houses, he could vouch for their drainage. Under such assurances, I dismissed all apprehension of Mrs. F.'s having contracted her disease in her present location. So fully satisfied was I with this report, that, having occasion, within two or three days, to visit the agent on account of some repairs which the house needed, I incidentally mentioned that I feared Mrs. F. had typhoid fever, and, upon his remarking that he hoped that I did not attribute it to the house, I cordially assured him that I had every reason to believe that it could not be ascribed to any fault in the premises. I mention this fact to dispel any erroneous impression that I had formed any preconceived, unfavorable opinion as to the healthiness of this row of houses, and upon prejudiced views had endeavored to raise a theory of the cause of the present endemic.

So fully impressed was I with the above report on the sanitary condition of the premises, that when summoned to attend the Misses V., notwithstanding the peculiar odor which still prevailed through the house, and which all noticed who had access to it, I immediately ascribed the malady to the prevailing influenza. It was then that, appalled by so sudden and violent an outbreak, we were reluctantly compelled to suspect that there were local causes prevailing which alone could solve the sad mystery. Upon Dr. Da Costa's questioning me as to the sanitary condition of the houses, I gave him the result of my own previous inquiry. At Dr. Da Costa's suggestion, I made an appointment with Mr. Bryan, an intelligent and expert plumber residing on Spruce Street, to meet us on Tuesday, October 15, at 10 A.M., and report on the condition of the drainage of the house. As the result of his investigation, in which he was accompanied by Dr. John M. Keating, I will give you the *ipsissima verba* of Mr. Bryan, as written by him for a New York journal.[1] His short but emphatic response to us was: "This

[1] "I made the examination, and found there was no main trap in the drain pipe. There was a three-inch galvanized 'sheet-iron' corrugated pipe leading from the French roof between the outer front wall and the studding, and

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family has been actually living in a sewer." It is proper to state here that, during the investigation, when Dr. John M. Keating, in company with Mr. Bryan, reached a portion of cellar to which his attention was particularly directed by Mr. B., he instantly identified, but in much greater intensity, the same peculiarly offensive odor which every one had observed in Mrs. F.'s room. Upon Dr. Da Costa's asking Mr. Bryan whether anything could be at once done to protect the inmates from further injurious results, he answered, "I can trap the drain pipe at its exit from the cellar into the sewer, but this will be only a partial remedy, and had I any relative sick in this house that could be removed, I would consider it an imperative duty to do so." In accordance with these views, the Misses V. and Miss F. were removed within four hours to private rooms at St. Joseph's Hospital. Mrs. F. was so prostrated—her condition so precarious—that we would not incur the risk of her removal. She succumbed three days later.

Taking into consideration the complete immunity of Miss N. from the disease; the rapid change in the type of the disease in the case of Mrs. F.; the sudden and violent outbreak of three more cases in the same dwelling at the same moment—one of the victims, Miss F., having remained at Renovo but a few days, the same period of time as her cousin, Miss N., and having then sojourned for *four weeks* near Providence, R. I.[1]—in combination with the emphatic

exposed in the cellar and connected with the terra-cotta drain near the cellar floor; every slip joint of which was pouring out its deadly contents of sewer gas, to be taken up by the large portable heater which was supplied with cold air from the cellar and distributed through the main building. I also found the waste pipe from the second and third story wash-basins trapped in the cellar, and smelling at the connection with the terra-cotta drain pipe near the floor. Here were two stories of waste pipe (with no traps under the basins) to help to vitiate the air of their respective apartments. I also found a four-inch rain conductor run down on the outside of the back building, near the main building: all joints of which poured out their quota of sewer gas to be carried into the house through the open windows in pleasant weather. You could not stand at any of the open windows in the rear portion of the house without being sensible of the presence of sewer gas in the surrounding atmosphere, caused by the exhalation of foul vapor from the rain-conductors of the surrounding properties. After digging up the front of the cellar to put in a main trap, my workman found the terra-cotta pipe jointed with common lime mortar." (See Figs. 1 and 2)

[1] Miss F. arrived in Philadelphia from Providence at 10 P. M., Sept. 26. She sickened (as by her own statement) on Saturday, October 5. She was *ill* in *bed* on Monday, October 7. The eruption appeared on October 15. From this it will be seen that the exact period of incubation in her case was *eight* days, the eruption appearing on the tenth day after.

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report of Mr. Bryan on the sanitary condition of the house, we could not hesitate, under such a combination of circumstances, to ascribe the cause of this endemic to defective drainage in the house. I would also call attention to another fact which very forcibly strengthens our position in reference to the immediate cause of the disease. Between the 1st and 5th of October, Mrs. F.'s nurses, forced to keep a constant draft of fresh air in her room, on account of the impurity of its atmosphere and the peculiar odor pervading it, suffered so much in the night vigils from the coldness and dampness of the air, that they requested to have the furnace lighted in the front cellar. My recollection of this event is revived by the fact that as Mrs. F. was rapidly approaching convalescence, she endorsed the request, saying at the same time that, as she was rapidly approaching the period of sitting up, the room ought to be previously warmed. I think that the furnace was started about Monday, the 7th of October. On Tuesday night, October 8, the relapse took place, with all the symptoms of blood-poisoning so intensified, and the whole case so much aggravated (without any signs of intestinal ulceration from which there could have been reabsorption of septic matter), that I was completely at a loss to explain it.

At the time of Mr. Bryan's investigation, the furnace was not in operation, the offensiveness and oppressiveness of the atmosphere of Mrs. F.'s room having so much increased under its employment that the nurses, in accordance with my own feelings, urged its discontinuance. Mr. Bryan stated verbally to us at the examination, that it was most fortunate that the furnace was not in operation, as the state of affairs would have been exceedingly aggravated for those persons occupying rooms in the front of the house. Mr. Bryan described the cellar as the focus of the poisonous infection from the exhalations escaping from an imperfectly jointed, corrugated galvanized iron pipe extending from the sewer to the top of the house. The draft of cold air which fed the furnace came from the cellar, there being no flue connecting the furnace with the air from the street. This foul air of the cellar, heated by the furnace, was the atmosphere which Mrs. F. was breathing in her room day and night during her early convalescence, and which her nieces and granddaughter were stealthily imbibing during the night. Hence, most probably, the sudden change in Mrs. F.'s case on the night of Tuesday, October 8, and the rapid and virulent outbreak among the other inmates of the house on the 9th. It would be well to call attention at this moment to the fact, which I have learned from personal experience and report, that in this city the necessity of having a connection between the furnace and the street is often

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overlooked, and that the atmosphere prevailing in many of our houses emanates from the pent-up, stagnant air of the cellar, having nothing to change it or purify it.

There is another habit prevailing in this city which I consider to be extremely prejudicial to health and liable to great risk. Many of our citizens, in going to summer quarters, close their houses, and, to prevent depredations, almost seal them up hermetically. Should there be any defective drainage, or even stagnant water in the traps, the atmosphere of the house is contaminated during the whole summer. Upon a few hours' notice the house is opened and inhabited, without even flushing all the pipes of the water-closets and stationary washstands. The latter procedure I have insisted upon for several years past with my patients, and ordered it to be continued for at least two hours before the inmates' return.

The accompanying diagrams, taken by permission from Dr. Keating's paper, clearly indicate the plan of the drainage and the position of some of the defects. The kitchen was in the basement, opening directly into the cellar, and of course sharing its atmosphere Articles of food were, as is usual, kept in the cellar itself. The servants noticed a very heavy, foul odor on coming down in the morning. Food both cooked and uncooked, milk, butter, etc., had therefore ample opportunity of becoming directly infected with the disease germs floating in the air.

The second case which I adduce resulted in the death of a citizen so well known, and who gave promise of a life of so much honor and value to the community, that it is difficult to repress a burst of righteous indignation at the thought that such a life should have been so needlessly sacrificed. I refer to the lamented Henry Armitt Brown. While it is true that his illness apparently originated in the exhausting effort which he made in the delivery of his famous oration at the celebration of the centennial anniversary of the breaking up of Washington's camp at Valley Forge, on the 18th of June, 1878, a day of intense heat, it is also true that he was far from well when he entered upon the discharge of this duty, and that both symptoms and pathological changes pointed unmistakably to typhoid fever as the cause of death.

He received unremitting attention from his friend and physician Dr. Da Costa, and Dr. Elwood Wilson, who was then in attendance upon Mrs. Brown, but in spite of every effort the diarrhœa persisted, and towards the latter part of his sickness assumed a dysenteric character, and contained clotted and fluid blood and mucus. Transfusion of milk was thrice performed, but with only temporary benefit. (For description of operations see *Transactions Philadelphia Co.*

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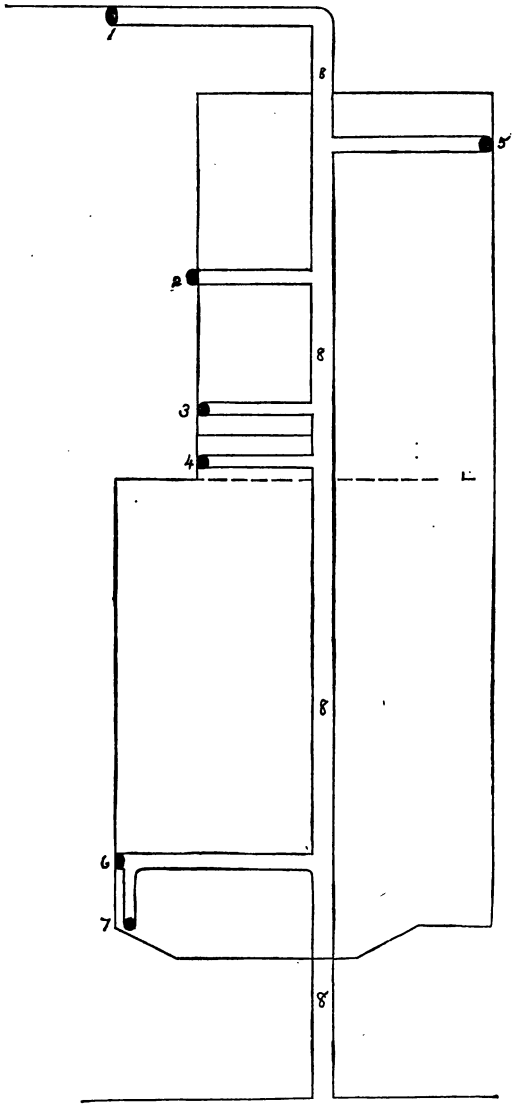
FIG. 1.

Ground plan of drainage of house No. 2216 Spruce Street.



1. Hydrant bell trap.
2. Rain pipe connection (for back building).
3. Soil pipe.
4. Servants' water closet.
5. Kitchen sink.
6. Waste pipe for stationary washstands.
7. Rain pipe for front roof.
8. Terra cotta drain.

Sewer on north side of Spruce Street.

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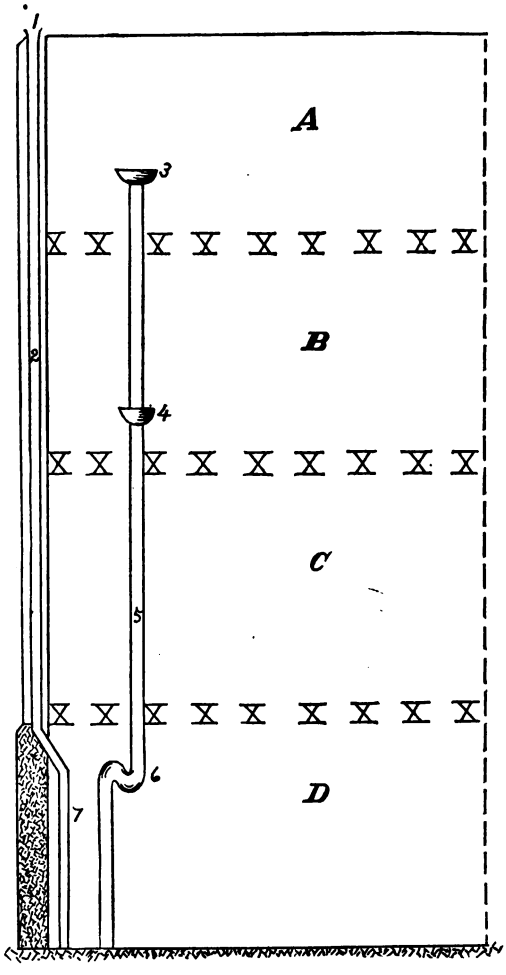
FIG. 2.

Elevation plan of drainage of house No. 2216 Spruce Street.



1, 2, 7. Rain pipe from roof.
3, 4, 5. Stationary washstands and waste pipe.
6. The same trapped in cellar.

A. Third-story room.
B. Second-story room.
C. Parlor.
D. Cellar.
X. Transverse section of joists.

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Med. Soc., 1878–9.) He died of exhaustion on the morning following his removal to his brother's house (Twenty-second St. and Delancey Place) which had been effected as a last resort. The autopsy revealed the lesions of chronic colitis; the small intestines were but little involved, although microscopic section revealed changes in Peyer's patches such as follow typhoid fever, some of them having sloughed out entirely.

The hygienic conditions of Mr. Brown's residence were bad. Frequent cases of illness occurring in the family led the family physician to insist on a careful examination of the plumbing arrangements. This was made by Mr. Bryan, who has, at my request, furnished me a written statement of the condition of affairs at that time, which I give in his own words:—

"I found the main underground sewer pipe untrapped and very foul; by raising the cover of the bell trap in front of the hydrant there was a constant stream of sewer gas pouring out of the pipe."

An effective system of ventilation was at once suggested and carried into effect. As the defects which had been discovered were quite adequate to account for the unhealthy state of the dwelling, there was good reason to hope that now that they had been remedied, "the voice of joy and health" would once more be "heard in the habitation." No one could conceive of the existence of the "horrible pit" which lay under the public thoroughfare, and in which were lurking dragons fouler than those of mediæval legend. These hopes, as we have seen, were doomed to bitter disappointment. Mr. Bryan continues his narrative. "Very soon after Mr. Brown's death I was called on in a great hurry. The servant said there was a leak of very offensive water coming through the kitchen floor. I thought that very strange, knowing the position and condition of the drain-pipes. So I determined to go with the plumber and satisfy myself what was the cause of it. When we got there the water had nearly ceased running. We flushed out all the pipes and found them clear, and the flushing had no effect on the leak. I then measured from where the leak showed itself in the floor to the rear wall of the house and found it eight feet. I then went out and up the side alley and measured front eight feet from the rear wall of the house, and it brought me directly in front of a cess-pool belonging to the Sansom Street houses. I gained access to the cess-pool by lifting up the seat; I could see the foundation wall of Mr. Brown's house.

"The cess-pool was directly under the alley and covered by a brick arch. There was a shoot made to carry the filth into the cess-pool from under the seats, and there was a pipe leading from the front

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of each hydrant of the two houses into that shoot to flush it out and carry the filth into the cess-pool and through the pipe under the alley to the sewer. I saw rats there, and I at once came to the conclusion that they had undermined the foundation and opened a passage for filth to run in under Mr. Brown's basement kitchen floor. I learned from the gentleman that lived next door, that he had a foot of dirty water in his cellar and could not tell from whence it came. But after the discovery of the cess-pool its source was plainly visible. Nobody knows how long this leakage had been going on and polluting the atmosphere of the whole house. But there had been a dead heavy air noticed for a long time.

"After my report the nuisance was abated by connecting two Hopper water-closets directly with the drain-pipe in the alley.

"You will observe from the diagram how near the cess-pool was to the basement kitchen range, the heat from which induced the rats to burrow under for warmth, and also sucked in the foul gases from the cess-pool."

In this instance again I call attention to the fact that the atmosphere of the kitchen was saturated with sewer and cess-pool gas and the contamination of the food was an inevitable consequence.

The last case to which I shall refer was fortunately accompanied by no such sad results as the two previous ones, owing to the fact that the occupant of the premises was alive to his danger.

Shortly after the occurrence of the above-recorded cases, I was waited upon by a prominent member of the Philadelphia County Medical Society, with the request that I would refer him to an expert in sanitary plumbing. He stated that his family had been greatly annoyed for some time past by foul odors in the house; that their health was suffering in consequence; that the plumber who had been doing their work had examined carefully, and could not find anything wrong. He said "it was a dead rat hidden away somewhere." A relative of the doctor's who was an architect, however, fortunately happening to spend a few days at his house, pronounced it unquestionably the stench of sewer gas. I had no hesitation in recommending Mr. Bryan, who was immediately called in. The following is his report of the state of things found, after everything had been pronounced perfectly secure by the family plumber.

"I found the house drained through a terra-cotta pipe running through a back alley, in common with other houses backing on the same alley. This pipe ran up the side yard, and took all the drainage of the house, except one water-closet and bath-tub, and two wash-basins in the front chambers of the house. The drain pipe

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had been put in by contract, and the contractor was to connect all the drainage with it, and the owner thought he had done so. Previous to the drain pipe being put in, the water-closets (one on the second and one on the third story back building, with a separate soil pipe to each) drained into a well under the cellar bottom; one of these soil pipes he cut off about three feet above the cellar floor, and connected the stack to his terra-cotta drain pipe in the side yard. The three feet still connected with the well he left there, without even plugging it up. The other soil stack he did not disturb. The effect of this was plain to be seen: every time the water-closet connected to the well was used, or the bath in the same room connected with the water-closet trap, it stirred up the contents of the old well and forced out the distilled gases through the other soil pipe which he had left standing, to act as a chimney for the easy escape of the contained gases into the cellar, and be then taken up by the two large brick heaters, which were supplied by cold air from the cellar, and be then distributed through the whole house, in the form of hot air, to poison its inmates. This was bad enough, but not all. The kitchen sink was connected directly with the terra-cotta drain pipe without a trap, and the cook said she could hardly get her breath in the morning when she came down stairs to prepare breakfast. The pantry sink on the first floor was connected to the soil stack that had been connected to the drain pipe; the sink was out of order, and had not been used for a long time; the water in the trap had evaporated and left an open road for the sewer gas to help vitiate the air of the house. There was another leakage of sewer gas in one of the soil stacks where the lead and iron connected near the cellar ceiling; this connection was made with putty. I think I have given you causes enough for the presence of sewer gas in the house. But there was still another. This job of soil piping was done in the old way. The soil pipes terminated at the water-closet traps. According to experiments made by Dr. Fergus, of Glasgow, with bent glass tubes in the shape of our ordinary plumbing traps, it takes ammonia gas only fifteen minutes to pass through the water of a trap and fade litmus paper at the house end, and the heavy gases from one to four hours to do the same and diffuse themselves into the atmosphere of the house. The danger from this source is generally overlooked, as it is not noticed in the daytime, when the fixtures are used enough to frequently change the water in the traps and prevent the diffusion of gases through them. But at night, when the water stands for eight or nine hours without being removed, it is very dangerous,

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particularly when the bath room connects with a sleeping chamber, as in this case one of them did."

As an additional witness to the imperfect character of the plumbing in Philadelphia, I quote Dr. Cleeman, a member of the Board of Health, who says: "I take it for granted that the plumbing is so defective, as a rule, in all our houses, that no immunity can be claimed on account of well-appointed traps. In corroboration of this assumption, I would point to what has lately been discovered by an examination of the drainage of the dwellings in Edinburgh. There has been formed in that city, as you have doubtless seen mentioned in the journals, a society, the aim of which is to insure effective house sanitation. In the first report of their inspector upon the condition of eighty-five houses, seventy-five were declared to be more or less defective in their drainage service. Now, if in Edinburgh, where I take it the contents of the sewers are much more likely to prove obnoxious than our own, from their more general use as a receptacle of excrement, such a state of affairs was found to exist, why should we expect better things of Philadelphia?"

It is a remarkable—to my mind almost an inexplicable—fact, that members of the profession are still to be found in this country and city who deny the noxious character of sewer gases and cess-pool emanations. In Europe where experience on this question has been more extended no doubts now remain. Dr. J. Brown, Medical Officer of Health to the Bacup Local Board of London, has been able to trace directly and unquestionably to sewer-gas poisoning cases of the following affections:[1]—

1. Submaxillary abscess and enlarged cervical glands.
2. Cervical abscess.
3. Axillary abscess with summer diarrhœa.
4. Inguinal abscess with summer diarrhœa.
5. Facial abscess.
6. Pelvic abscess with summer diarrhœa.
7. Multiple abscess.
8. Temporal abscess.
9. Typhoid fever.
10. Diphtheria.
11. Puerperal septicæmia.
12. Summer diarrhœa.

In view of the facts just rehearsed, I claim that the language of Dr. Townshend is not too strong when he speaks in the communication alluded to, of the "reckless criminality which characterizes some

[1] British Medical Journal, March 8, 1879.

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of our plumbing work." "We would bring to speedy punishment," he continues, "the druggist who carelessly dispenses poisons, or the grocer who fraudulently sells deleterious compounds, but permit a plumber, and pay him well, to open a direct communication between our chambers and the general receptacle of the foul drainage of our city, trusting to his honor for protection, and he goes unpunished for his fraudulent practices, while we ignorantly allow the health, life perhaps, of our family to be sacrificed by his neglect.

"Is it not eminently necessary that the people have proper protection? Is it not as necessary that a drain-pipe of proper size and thickness be put in as it is that the house itself should have a wall of certain thickness? Is it not as just that you should protect the people by having the safeguard of proper traps to shut out this deadly gas, as it is that you should require them to build houses of certain material to protect them against the danger of fire? In short, if you make regulations to protect them against an open, avowed enemy, is there not double necessity for barricading against one who lurks in the dark and strikes when we least expect?"

The foregoing histories appear to me to establish unquestionably the following conclusions:—

First. That much defective plumbing and drainage exists in the city of Philadelphia, even in houses which are handsomely built, of pretentious exterior, renting at high figures and warranted by both contractors and agents to be perfectly secure in these respects.

Second. That many of our plumbers are imperfectly educated in their art, and entirely incapable of detecting faults of plumbing and drainage.

Third. That typhoid fever or typhoidal diseases existing in this city have been directly traced to defective drainage and plumbing as their cause. Based upon these premises I beg leave to present the following resolutions:—

Resolved, That it is the sense of this Society that it is expedient that every city or town provided with a system of sewerage should have provision made for the inspection of the plumbing and drainage of all houses and buildings having connections with its sewers, and, therefore,

Resolved, That a committee be appointed to memorialize the Legislature of this Commonwealth, with a view to procuring the passage of an enactment providing for the appointment of an Inspector of Plumbing and Drainage in all such towns and cities, and that the following bill be respectfully suggested to the Legislature as an appropriate form for such enactment.

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AN ACT

To establish the office of inspector of plumbing and drainage in certain cities and towns in the Commonwealth of Pennsylvania.

SECT. I. *Be it enacted by the Senate and House of Representatives of the Commonwealth of Pennsylvania in General Assembly met, and it is hereby enacted by the authority of the same:* That there shall be appointed by the city councils, town burgesses or other legislative body, of every city, town, borough, or municipality, in this Commonwealth which is provided with waterworks or a system of sewerage, or both, on recommendation of the health officer, or where such officer does not exist, of the board of health, or where such board does not exist, of the chairman of said municipal legislative body, an inspector of plumbing and drainage for such city, town, borough, or municipality, whose duty it shall be, under the direction of the health officer, or such other officer or body as is herein above provided for, to inspect the connections of the drain-pipes of all buildings with the common sewers or with cess-pools, and the condition of the plumbing work in all houses in which cases of disease attributable to sewer-gas poisoning have occurred, or the owners or occupants of which are desirous of having such inspection made. And that from and after the appointment of such inspector no new dwelling or building shall be allowed to be occupied for any purpose whatsoever, until the said inspector shall have decided after due examination that its plumbing and drainage are perfectly secure, and shall have furnished a certificate attesting the same.

SECT. II. In all cases in which said inspector shall report that defects in plumbing or drainage or sewer ventilation exist, it is hereby made the duty of the officer or body under whose direction the inspection was instituted, to enforce such regulations in regard to said defects as shall insure their complete correction. And any person who shall neglect or refuse to comply with the requirements of said regulations shall be punishable by a fine of from twenty-five to two hundred dollars for each and every such offence, or in default of payment of fine to imprisonment for thirty days.

SECT. III. This Act shall go into effect immediately after its passage.

SECT. IV. All laws or parts of laws inconsistent herewith shall be and are hereby repealed.

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THE CONSTRUCTION OF AN OPEN ADJUSTABLE APPLIANCE FOR THE TREATMENT OF SPINAL CURVATURE AND DISEASE.

By E. H. COOVER, M.D.,
HARRISBURG, PA.

In the early part of 1877, while seeking for means to treat spinal disease not possessing the objections of the usual methods, it occurred to me that an open adjustable appliance, with corset facilities, could be manufactured of some light fabric, made rigid in a few hours by a preparation applied to it which would adapt itself readily to the body, thereby gaining an advantage over other resources then in use. Numerous combinations of material suggested themselves to me, but were all open to objections in one or more respects. At last I chanced to think of the solution of silicate of soda as a proper stiffening material, and felt sure that if strips of muslin were prepared with it and laid in suitable layers upon the body of the patient, a jacket or corset could be constructed which, by its strict conformity to the body, would furnish the support required uniformly.

Upon experimenting with the material I was more fully convinced of the feasibility of this plan, and I determined to employ the process in the treatment of the next case of spinal curvature which came under my professional care.

An opportunity occurred in September of that year, and on the 21st of that month my first practical experiment with the new material was made. The success which followed this first attempt encouraged me to seek further improvement in the mechanical construction of the jacket, and the result is an appliance which will be recognized as free from the objectional features which impair the usefulness of so many of the supports in use.

In the *Medical and Surgical Reporter* of April 13, 1878, in an article entitled "Suggestion in the treatment of spinal disease and curvatures," I gave a description of my new support, together with a history of a few of the cases in which it had been used. Since then many improvements have been added from time to time, and there is no doubt that it can be still further improved.

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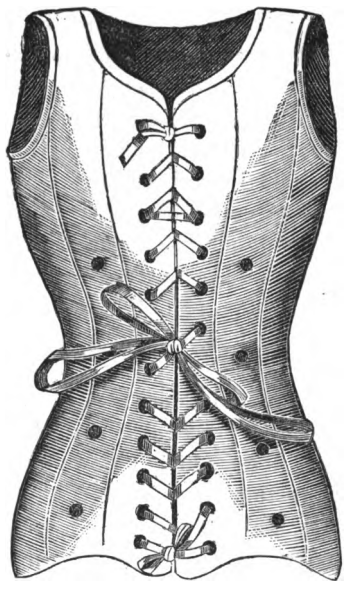
Measurement being taken of the patient in the same manner as by a dressmaker when about to cut a dress body, or a tailor in cutting a coat, four pieces of unbleached muslin shaped like the front and back pieces of a coat are cut; the patient being seated upon a stool a little higher than an ordinary chair, and clothed in a skin-fitting under-garment. The front pieces are laid on, first wetted with the solution of the silicate of soda (sp. grav. 1.2755 in summer, and a little higher in winter), and placed in position; the back pieces are next laid on, also wetted with the solution. They are so cut at the connecting edges that when pressed together, in upon the body, they meet without overlapping, and at the same time conform to the natural curve described between the shoulders and the hips. A roller bandage, 3½ or 4 inches wide, is now passed around the body, commencing immediately under the axilla, and continuing to a point about four inches below the crest of the ilium, the bandage as it is being paid out being wetted with the silicated portion, applied with a brush in the hands of an assistant. This secures the foundation



pieces in place, and conforms them to the body. Braces cut from tin, slit at short intervals along their entire length, and about an inch from the edge toward the centre, like a many-tailed bandage, in order to make them more flexible in adjusting, three or four inches wide at top, and five or six at bottom, reaching from near the axilla to a point beyond the crest of the ilium, and partly to the

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rear of the hip-joint, are next placed in position curved to meet the natural curve of the body, and covered with muslin wet with the silicate of soda solution.

I would here draw your attention more particularly to the position of these braces on the side of the jacket. The one on the left side shows the brace as resting upon the crest of the ilium, bearing the weight of the throat and upper extremities of the body. Much inconvenience and uneasiness is occasioned by the jacket with the brace in this position. For weeks and even months, particularly in spare persons, the patient is compelled to lift it up and out of place to obtain relief, thereby defeating the object intended. But when the brace is placed partly to the rear of the ilium, as is shown on the right side, it sets on the glutei muscles, they being large, forming a cushion for the brace to rest upon, and are largely concerned in the station and progression of the lower extremities, carrying the weight of the upper extremities without the slightest inconvenience to the patient. Other braces of tin an inch wide, and extending from the junction of the fourth rib with the *os sternum* to a point near the *symphysis pubis*, are placed, leaving a space of about two inches on each side of the medium line where the jacket will be cut for the purpose of eyeletting. Still another brace of tin, an inch or an inch and a half wide, is placed along the spine, shaping it also to meet the contour of the parts.

Should there be a posterior curvature, and some of the spinous processes extend out more than natural, it is better to lay two narrow strips of tin, one on each side of the prominent vertebræ, for the reason that the diseased structures will not tolerate any undue pressure. A bandage similar in dimensions to the one alluded to, prior to applying the braces, is now carried around the jacket over the braces, being saturated as it advances with the silicated solution. It is well to allow the bandage to lap fully one-third, and to prevent wrinkles and folds it is better to cut the muslin; the patient being meanwhile extended with some suitable extending apparatus designed for that purpose. Care should be taken not to extend so high as to deprive him or her of the support afforded by the heels, as, in my opinion, the weight of the lower extremities straightens the spinal column in too great a degree if the extension deprives the body of all other support. The braces being now firmly secured in position by this last bandage, a second or outer bodice, exactly like the first, is then applied, and the patient lowered and laid upon a firm bed, care being taken to disturb the set of the jacket as little as possible, and allowed to remain quiet for four or five hours, at the end of which time the material will have become sufficiently firm to retain

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its shape. The jacket is then removed by cutting it open in front and carefully slipping it off. Before removing it, however, it should be turned off under the arm at top, both back and front, as low down as may be desired, but not so low as to impair its usefulness. At bottom it should be allowed to extend several inches below the crest of the ilium, and cut in the direction of the *symphysis pubis*, so that when the patient is seated the jacket will not rest heavily upon the thighs. If after cutting the jacket, prior to its removal, the edges should meet when brought together, they should be trimmed off to an extent which will prevent them from meeting within an inch. This is very necessary, as changes frequently take place in the fulness of the body of the patient, and, if the jacket does not press firmly and evenly upon the whole surface, a condition impossible at all times if the edges meet, the support necessary to the comfort of the patient is lost. In taking out material the space should be equally divided between the two sides, where the centre of the jacket is the part *manipulated*, otherwise the symmetry of the apparatus is destroyed.

After carefully smoothing out all the wrinkles which may happen to be on the inner surface, the jacket is placed over or beside a hot stove to thoroughly harden. This accomplished, I place the jacket over a rounding block, and with a round-faced hammer pound down all the projecting points and irregularities. All the cut edges are then trimmed or bound with strips of muslin cut bias, not sewed on, but pasted with the silicate of soda solution. This will prevent the separation of the different layers and render the jacket more durable. The front edges are eyeletted, or supplied with eyeletted cloth riveted on. In order to permit the escape of the natural exudations of the body, and secure necessary ventilation, several rows of holes, about the size of a No. 16 catheter, are made with a steel punch from the inner surface to avoid prominences upon the inside. The shoulder straps are finished, and the instrument is ready for adjusting.

In order to ascertain whether the curves in the jacket, particularly that of the region termed "the hollow of the back," correspond with those of the body of the patient, careful measurement should be taken of the patient's and compared with those of the jacket. This is most conveniently done with a common yardstick by placing one end upon the bony prominence of the scapular region and the other upon the nates, measuring the arc described between the straight edge and the body with a common foot-rule.

The anterior curve, or that of the region commonly denominated "the hollow of the back," is ordinarily from an inch and a quarter

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to an inch and a half in the adult, and the jacket should be made to have this curve in order to give that support to the diseased structures which is necessary to a successful treatment. In posterior curvatures it will be impossible to adhere solely to the rule laid down, yet the patient is as much in need of a support as any other class of cases who may apply for treatment. If any alteration in the jacket is necessary to its proper conformity it may be accomplished by slitting the jacket at that point and removing an elliptical or wedge-shaped piece. The opening thus made is drawn together by puncturing holes in either edge, and drawing together by means of a lace or linen tape.

I have now carefully and minutely described the mechanical construction of my jacket, and feel assured that if my professional brethren will follow my process strictly, success will attend their efforts not only in the construction of the jacket but in affording relief to those of their unfortunate patients to whose infirmities support is rest, and rest is the natural therapeutic agent for the relief of pain.

When about to adjust the jacket upon the patient finally, he or she should be extended as in the manner formerly described. The jacket is then put around the body and set to its place. If too hard to adjust easily, it may be softened by the application of hot water. It is now ready for lacing. Begin with a strong lacer about the third or fourth hole from above down, lacing until you reach the umbilical region, when drawing it through and making a loop long enough to tie on either side, proceed to lace tightly until the lower edge is reached, where it is fastened. The object of leaving the tie loop in the umbilical region, is to draw it tightly together at that point, thus making extension and counter-extension at the same time; the bony structures of the scapular and iliac region serving as a fulcrum upon which to bear the weight of the space between. Then begin with a short lace and lace it through the four upper holes, drawing it as tightly as the patient will allow, and tie it. The object of this short and separate lacer is to afford the patient, if a female, relief from undue pressure on the mammæ. Before moulding the jacket upon the body of a female, it is my custom to protect the mammæ with artificial breast-shields made for that purpose, so that the development of these organs will not be interfered with. No dinner pad is necessary with this jacket, as the patient may find relief after a hearty meal by simply loosening the tie loop in the umbilical region, the laces at top and bottom being sufficient to hold the jacket in place. In females who suffer from uterine displacement, this jacket affords a perfect support, and in no single instance have I learned of any ill effects resulting from the use of it by young or old. It is lighter than any other similar ap-

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pliance and quite inexpensive, the quantity of the solution of the silicate of soda used being from three to four pounds, costing only about thirty-five cents, one half being wasted in the construction of the jacket; and muslin at eight or ten cents a yard will not add greatly to the cost of the whole. The silicated solution does not set near so quickly as plaster of Paris, does not crack or crumble, and it is more durable than any other form of jacket in use. I have a number of patients who have worn them between two and three years, without alteration or repair, and they are as firm to-day as they were when first put on. In fact the only case in which I have been called upon to replace them with new ones, is where the patient being a very young person has outgrown them, the original jacket preserving its shape and texture.

The jacket's easy removal for the purpose of cleansing the body or changing the underclothing, and its light bulk allowing the wearing of a tightly fitting dress without attracting observation, gives it advantages which are by no means trifling.

After the first adjustment, no extension being required, the patient takes it off and puts it on without assistance. The weight of the large jacket, suited to a person weighing 140 pounds, is two pounds eight ounces; and the small jacket, suited to a child between one and two years of age, weighs ten and a half ounces. The time required to mould it upon the person is from thirty to forty minutes.

A Method of Ascertaining the Extent of Curvatures.—I have found that careful measurement from the acromion process of the scapula to the symphysis pubis anteriorly, and from the same process to a central point in the sacro-vertebral region of the back posteriorly, will give the stature of the body. If the equilibrium of the body is at all changed this measurement will at once show the extent, which may not be perceptible in the spinal column. If the curve is the result of spinal disease there will be a corresponding depression of the shoulder on the opposite side of the arc. But if this curve be due to a shortened leg or a diseased hip-joint, the shoulder will not be depressed but remain in the natural position as in compensating curvature of the spine.

Also mensuration from the crest of the ilii to the sterno-clavicular articulation, exhibits any departure from the horizontal position of the pelvis due to curvature in the lower portion of the spine or to mal-adaptation of the lower extremities.

I have only recently made these observations and present them for further investigation, hoping the profession will interest themselves in the idea advanced. It will greatly facilitate the diagnosis and prognosis in the examination and treatment of spinal diseases.

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THE BROMIDE OF ETHYL AS AN ANÆSTHETIC IN PRACTICAL SURGERY.

By JOHN B. ROBERTS, M.D.,

LECTURER ON ANATOMY AND ON OPERATIVE SURGERY IN THE PHILADELPHIA SCHOOL OF ANATOMY.

THE interest awakened throughout the whole country by the experiments of Drs. Turnbull and Levis in the use of this anæsthetic agent, have induced me to bring the subject before the Society at the present meeting. Although the former gentleman reported the results of his experiments with bromide of ethyl at the meeting of 1878, it not seem to attract attention as a practical anæsthetic until the latter made a very extensive use of the agent in the wards of the Pennsylvania Hospital, where its efficiency in practical surgery was fully demonstrated. His first paper on the subject,[1] which was almost immediately followed by a short article of my own,[2] gave such an impetus to the subject that the journals have since that time been full of editorials, reports of cases, and notes of experience with the use of bromide of ethyl in surgery, dentistry, and midwifery.

The reasons for this sudden adoption of the new anæsthetic, if it may be called new, are the desire of the profession for novelty, and perhaps in a greater degree the fact that the two anæsthetics usually employed are in many regards unsatisfactory. Chloroform kills without warning, and ether, though always efficient, cannot be administered with ease and comfort in all cases; hence there has been a tendency to allow the boon of insensibility to pain only to those who are to undergo capital operations. Many women have spent hours of torture during parturition, many men have writhed during the dilation of a stricture, and many infants screamed themselves hoarse during hare-lip operations, because the attendant dared not give chloroform, and found ether inconvenient. If I can there-

[1] Phila. Med. Times, January 17, 1880.
[2] Medical Bulletin, Phila., January, 1880.

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fore prove to the members of this Society that bromide of ethyl has greater advantages than the commonly used anæsthetics, I shall do much to alleviate the sufferings of the class mentioned.

History.—As to the history of the adoption of the ethyl bromide, or hydrobromic ether, among the anæsthetics, it will suffice to say that Mr. Nunneley, the late well-known surgeon of Leeds, England, made extensive use of it in his practice, and reported his results to the British Medical Association in 1865.[1] He had previously made various experiments with animals with very favorable results.

Dr. Turnbull, in his Manual of Anæsthesia, called attention to the use of bromide of ethyl as an anæsthetic, and made many experiments with it, apparently ignorant of the very exhaustive investigations of Nunneley. From Turnbull's statements Dr. Levis was induced to take up the matter, and to push the investigation of its properties with great vigor; and it is to him we owe the resurrection of Nunneley's papers on the subject.

Preparation.—Various methods of preparing this compound have been employed, but that which, according to Dr. L. Wolff, of Philadelphia, seems to give the best specimens at the cheapest cost, is to decompose ferrous bromide with sulphuric acid in the presence of alcohol. Dr. Wolff states that by this method the bromide of ethyl may be made in large quantities at a cost for material of about 60 cents per pound of bromide of ethyl. A less troublesome process, when small quantities are desired, is that in which bromide of potassium is used instead of the bromide of iron. In this way the cost is increased about fifty per cent. As the whole process of manufacture has been discussed in the paper of Dr. Wolff recently published,[2] it will not be necessary to go into details, since this concerns the pharmacist rather than the surgeon.

Physiological Effects.—Unfortunately the physiological effects of the administration of bromide of ethyl have not been very thoroughly studied as yet, except as occurring during operations. Nunneley's early experiments were made upon animals, but physiological experimentation of that day had not the scientific methods that it now presents. Dr. Isaac Ott, of Easton,[3] Dr. Wolff, of Philadelphia,[4] and Dr. Wood of the same city,[5] have made some investigations in this direction, but have not continued their experiments as far as

[1] Trans. Provincial Medical and Surgical Association (1849), vol. xvi. p. 206, and British Medical Journal, Aug. 19, 1865, p. 192.

[2] American Journal of Pharmacy, May, 1880.

[3] Detroit Lancet, April, 1880.

[4] American Journal of Pharmacy, May, 1880.

[5] Phila. Med. Times, April 24, 1880.

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could be desired. It is stated that Dr. Bartholow also intends giving some attention to the subject, but, as far as I know, he has published no results up to the present time.

The experiments of Ott on frogs and rabbits seem to have been the most thorough, but the results of the writers mentioned are as discordant as the reports of those who have used the drug for anæsthetic purposes. It will therefore take more extended inquiry to determine the physiological effects of bromide of ethyl. The deductions obtained may perhaps be interesting. Dr. Ott states that when inhaled with free access of air it increases the frequency of the heart, and that this must be due either to stimulation of the accelerative nerves or of the cardio-motor ganglia. It is more probably due, he thinks, to direct stimulation of the cardio-motor ganglia or the cardiac muscle itself. There is also increase of arterial tension caused by a stimulation of the spinal vaso-motor centres or of the peripheral vaso-motor system. In regard to respiration, he asserts that the drug decreases the activity of respiration evidently by an effect on the central ganglia, and that the dangers from changes in respiration or cardiac action, as compared with ether, are quite small. It more nearly resembles, in his opinion, nitrous oxide, and its dangers are, if anything, less than those attending the use of that agent, which occasions symptoms of asphyxia. Dr. Wood, on the other hand, says that his experiments show that bromide of ethyl may cause anæsthesia without reducing the blood pressure, but also indicate that it is distinctly depressant, and may, when in excess, reduce the force of the blood-current to a very marked extent. He further asserts that his experiments prove that the bromide of ethyl acts as a cardiac paralyzant, and that it resembles chloroform rather than ether, and probably shares the dangerous properties of the former drug. To decide between these antagonistic opinions will require accurate and non-biased physiological research.

Wolff, among other experiments, gave large doses hypodermically to rabbits. In one instance he administered 30 minims, producing sleep and muscular relaxation, from which the animal recovered in one hour; but 15 minims of chloroform similarly injected caused threatening effects and complete somnolence, from which the rabbit could not be aroused, but remained many hours in a more or less stupefied condition. He also injected 2¾ drachms of ethyl bromide within a half hour into the subcutaneous tissues of a rabbit weighing five pounds, but failed to produce death within two hours. The next day, however, it was found that the rabbit had died after being removed from observation. The autopsy showed congestion of the brain. He infers that the ethyl bromide, *when properly purified,*

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has no toxic effect beyond that of ether or alcohol; but in excess may, under certain circumstances, cause death, as ether and alcohol, by cerebral congestion. He then anæsthetized three animals, so as to cause death, using ether, bromide of ethyl, and chloroform.

"The first one, under ether, was completely under its effect in one minute; heart's action rapidly increased in number of beats, diminished in impulse, death occurring in 3 minutes.

"The second one was in complete anæsthesia from ethyl bromide in 30 seconds; pupils first contracted then dilated; muscles relaxed; accelerated action of heart, gradually failing impulse; death in 7 minutes.

"Third rabbit received chloroform, producing rapidly anæsthesia in 50 seconds; heart feeble; at the expiration of 1 minute 50 seconds heart suddenly ceased to beat.

"*Post-mortem* appearance showed the animal killed by ether presenting congested membranes and investments of brain, heart apparently arrested in diastole, clot in right auricle and ventricle, which were largely distended; odor of ether thought to be faintly perceptible on opening abdominal cavity; *post mortem* hypostasis well marked in lungs.

"Rabbit died of ethyl bromide presented on *post-mortem* examination a brain somewhat paler than normal; clots in both ventricles and auricles of heart; death apparently from over-stimulation of this organ; lungs normal; no odor of the ethyl perceptible in viscera.

"Chloroformed animal showed on *post-mortem* examination an anæmic brain, small clots in right auricle and ventricle, heart apparently arrested in incomplete systole, due to clot; lungs markedly congested; no odor of chloroform noticeable."[1]

In these dissections and investigations Dr. Wolff was assisted by Dr. J. G. Lee, the coroner's physician.

Effects as an Anæsthetic.—Ever since Dr. Levis began the use of bromide of ethyl in his hospital and private practice I have been intimately associated with him in its administration. In the great majority of cases where he has used it I have been present as spectator or administrator. In his hospital work I have frequently noted the symptoms and supervised its use, while in his private practice I have nearly always administered the anæsthetic myself. This experience with that in my own practice inclines me to believe that with the exception of Dr. Levis I have had a greater opportunity than any one of observing its effects as an anæsthetic in man.

[1] American Journal of Pharmacy, May, 1880.

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The action of ethyl bromide is very rapid. If the patient breathes with any degree of regularity, anæsthesia is produced in from two to four minutes, and often in less than one minute. The struggling and excitement of etherization does not usually occur, but the rigidity constituting the tetanic stage of anæsthesia, as it is called, not unfrequently is seen, as in all anæsthetic inhalations. The tendency to spasm of respiration so frequently observed in the use of ether seems not often to be produced. Whether this is due to the fact that in using new anæsthetics one sooner observes the commencement of imperfect respiration, and thus averts the occurrence of spasm, I am unable to say. The cyanosis often observed in etherized patients, due to accumulation of mucus in the bronchial tubes and trachea, is almost unknown to me in the anæsthesia of ethyl bromide. My attention in using ether is always directed to this point, because I dread the interference of respiratory action which is associated with the rattling of mucus in the chest. One of the greatest virtues of the new agent to my mind is the freedom from anxiety on this point.

It is always difficult and often impossible to determine whether respiration or circulation is increased or diminished during anæsthesia, because the patient is frightened at the prospect of the operation, and may have a pulse of 120, and be breathing 30 times per minute when placed upon the table. Hence I regard observations of this kind almost worthless. The changes after anæsthesia has been produced can more readily be estimated.

Ethyl bromide does not seem to depress the circulation. The patient's pulse does not become feeble, and the ruddy hue of the face shows a good condition of circulation. Dr. Ott's experiments seem to confirm the assertion that the frequency and tension of the pulse are increased. Sweating upon the forehead is generally observed during prolonged anæsthesia. Usually the pupils dilate during total insensibility, but soon contract, which I generally take as an indication to renew the application. I have, however, seen contraction of the pupils during complete anæsthesia to pain.

The effect is transient: in a few seconds after removing the towel the patient is able to talk intelligently, and in a minute or two he can leave the operating table and walk away with scarcely a stagger. This circumstance is doubtless an element of safety; but is undesirable at times, because when necessary to remove the towel the patient almost instantly recovers sensibility. For this reason ethyl bromide is not as well adapted to operative procedures about the nose and mouth as ordinary ether. It is always difficult to sustain the anæsthetic effect under such circumstances, but I believe it will be easier done with ether than bromide of ethyl.

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The amount consumed will vary with the length of time of the operation, and the manner in which the administrator pours it upon the towel. Cases have been reported where large quantities, even as much as two ounces and a quarter by weight, have been given without producing the desired effect. In these instances there must have been some imperfect method of inhalation adopted. In the first twenty-five cases in the Pennsylvania Hospital, in which bromide of ethyl was employed as an anæsthetic agent, the average amount to each case was 3.9+ fluidrachms; while the time of continuance of anæsthesia varied from one to forty-two minutes. It is well to begin in an adult by pouring two fluidrachms upon the towel, and to add successive drachms as required.

Of the efficiency of the insensibility there can be no doubt, as amputations of the limbs have been performed under its influence. As during etherization, so here the patient may cry out as though in pain, and yet subsequently state that he was completely insensible. Occasionally he may say that he felt the contact of instruments with the part operated on, but had no pain whatever. In other cases where a more profound impression has been made no cognizance of surrounding circumstances exists.

Vomiting certainly occurs at times, and, perhaps, my former impression as to its infrequency was erroneous to a certain extent, since in one of my own patients the gastric symptoms persisted during a series of hours. If the stomach be empty the probability of vomiting is lessened, and the small amount required, with the rapid recovery from ethylization, would tend to render vomiting less likely than in etherization. Dr. Levis has truly said that the fully anæsthetized patient never vomits, and the manifestation of nausea during an operation signifies that the impression of the anæsthetic should be made more profound.

The odor is less persistent than that of ether, and does not remain about the clothes for several hours, as does the latter; which often renders one's presence in another sick-room objectionable long after leaving the etherized patient.

Method of Administration.—The best manner of administering bromide of ethyl is to pour two or more drachms upon a small handkerchief folded, or upon a piece of woven lint, over which is pinned a towel large enough to cover the eyes and whole face of the patient. This prevents rapid diffusion of the liquid through the towel, and at the same time keeps the vapor in contact with the patient's nose and mouth. Bromide of ethyl should be inhaled while in close contact with the face, just as ether is given. If held

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at a distance and given with free admission of air to the space between the towel and face, anæsthesia will scarcely be obtained. This is probably the cause of failure in the hands of many. Before the inhalation is begun the patient should be encouraged to confidence, and, as with all anæsthetic agents, should be instructed in the manner of taking deep inspirations. In children, who cannot be made to understand, this preliminary drill may be omitted, since deep inspiration is sure to occur during the crying produced by fright. No form of inhaler is required in etherization, and none should be used here.

The two drachms poured upon the handkerchief are generally sufficient to induce anæsthesia; but, if not, are supplemented by additional amounts as occasion demands. It is well to always measure the amount poured on, because accuracy of observation is thus obtained.

Objections.—As soon as operators throughout the State and country began the use of ethyl bromide reports were occasionally given that were unfavorable in their character. Some surgeons affirmed that they were unable to get any anæsthetic effect, even after using what I should call enormous quantities of the drug, while others said that there was induced a condition of muscular rigidity and spasm which alarmed them. Again, Dr. J. Marion Sims, of New York, reported[1] a case in which he believed that the anæsthetic produced headache and diarrhœa, and death twenty-one hours after its administration for the performance of Battey's operation for the removal of the ovaries. Dr. Adams, of Colorado, also has related[2] a case in which threatening symptoms occurred during its employment.

I am particular to refer to these objections to the new anæsthetic, because I desire, if possible, to discover the causes of trouble and remove them; and because if the agent is liable to produce death I must at once abandon its employment. In regard to the imperfect analgesic state produced by many, the answer is easily given. From my own experience, from letters and printed reports which I have read and studied, I am convinced that failure to produce insensibility is to be attributed to one factor only, and that is improper methods of administration. It has been given on sponges absorbing large quantities of the liquid, and in inhalers; and has been held far from the face, so that the patient was stimulated to the stage of excitement and was not impressed with its anæsthetic pro-

[1] Medical Record, April 3, 1880.
[2] Medical Gazette, May 1, 1880.

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perties. If the bromide of ethyl is poured in small quantity on a handkerchief, piece of lint, or small towel, covered as previously described, and is held close to the nose and mouth so that a prompt and full impression is made, and especially if the patient be previously taught how to inhale it deeply and rapidly, every one will be able to produce profound stertorous anæsthetic sleep. The large quantities used by some have astonished me, and prove that much has been diffused wastefully by absorption in the towels, or dissipated in the atmosphere of the apartment. Some administrators have admitted this after having obtained satisfactory results with a few drachms, subsequent to failure with several ounces.

Those who became startled at the muscular rigidity observed soon after the beginning of inhalation, must have forgotten that this is a distinct stage in using any anæsthetic, but often overlooked in giving the well-known ether and chloroform, because so familiar to us all. In ethylization, as in etherization and chloroforming, this stage differs in various patients and under varying circumstances. To prove that this tetanic stage is not limited to bromide of ethyl anæsthesia, I quote the words used by Bartholow in his *Treatise on Materia Medica and Therapeutics* (p. 361), where he discusses ether and chloroform, and anæsthesia in general. "If the subject be a robust male, in full health, especially if the inhalation has been proceeded with rapidly, the stage of insensibility is preceded by a tetanic convulsive stage, in which the voluntary muscular system and the respiratory muscles become rigid, the breathing stertorous, the face cyanosed. This condition of rigidity is similar to, if not identical with, the tetanic stage of the epileptic paroxysm. If the inhalation of the anæsthetic be pushed still further, the tetanic rigidity subsides, the cyanosis disappears, the breathing proceeds quietly, and a condition of complete muscular relaxation and of abolition of reflex movements is established."

This I have repeatedly noticed during etherization, sometimes with considerable alarm, and it appears to me very probable that the case recorded by Dr. A. W. Adams, of Colorado, was of this character. So much stress has been laid, in recent articles, on this rigidity while using bromide of ethyl, that I feel justified in making this long quotation, from a recognized authority, as to the physiology of anæsthetics.

When this tetanic stage affects the respiratory muscles, the anæsthetic should, whether ether, chloroform, or bromide of ethyl, be removed from the face for a moment, and the patient allowed free access of air until the spasm relaxes.

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In a recent case of Dr. Levis this symptom occurred, and for a short time the condition of the man was quite startling. The respiration ceased, and the patient's face became deeply cyanosed, though it is said by those who were at hand that the pulse was not greatly affected. As I was not administering the bromide of ethyl nor looking at the time towards the procedure, I am unable to testify as to the causation of the symptoms. His respiration went on as usual after proper measures had been resorted to, and the operation was completed under the anæsthetic effect of further doses of the bromide of ethyl. The man admitted that he was a drinker, and subsequent examination seemed to show that no valvular lesion of the heart existed, though the sounds were decidedly feeble. There had been poured upon the towel altogether four fluidrachms of the bromide of ethyl when the threatening symptoms occurred. Dr. Levis says he has seen the same degree of asphyxia occur during the excessive or inordinate use of ether; I have seen the same character, but not the same severity of symptoms.

The cost of the article is no objection to its use, for, when manufactured on a large scale from bromide of iron and used in proper quantity, it is probably as cheap, and perhaps cheaper, than other agents of the same character. In the first twenty-five administrations at the Pennsylvania Hospital, the total amount used was 91½ fluidrachms, or nearly 12 fluidounces; this would weigh 18 ounces avoirdupois, and, at the present retail rate of $3.00 per lb., would cost $3.37½. The average amount given to each patient was $3\frac{9}{10}$ fluidrachms, which would be at a cost of about 13½ cents each. This will be further reduced when the wholesale manufacture is conducted as recommended by Dr. Wolff.

I must now review the case of death which has been reported by Dr. Sims.[1] A woman, prone to epileptic attacks, was subjected to Battey's operation, and one hour and a half was spent in the performance of the oöphorectomy, which was done by the abdominal incision. During this long period, four and a half or five ounces of bromide of ethyl were used. I do not know whether this means ounces by weight or by measure. Subsequently nausea and vomiting continued for several hours. Intense headache was present, and the patient died twenty-one hours after the operation, having had persistent diarrhœa. It is proper to state that she had taken a moderate dose (ʒiij gr. xiv) of Rochelle salts the morning of the operation. The autopsy showed some bloody serum but no lymph in the peritoneal cavity, deep congestion of the ileum and colon, and

[1] Medical Record, April 3, 1880.

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slight cirrhosis of the kidneys. The brain apparently was not examined. The body was saturated with the odor of the liquid administered by inhalation, which was intensely disagreeable. Dr. Sims believes that his patient died from the anæsthetic producing the bowel symptoms; though the condition of the kidneys may have had, in his opinion, an indirect agency, by compelling elimination to take place through the lungs and bowels instead of by lungs and kidneys. He very pertinently asks whether the symptoms were induced by any impurity in the bromide of ethyl used, which had a much more disgusting odor than the specimens more recently produced.

In considering this case it must be remembered that a longer period of time was occupied than in any previous case of ethylization, the amount used was large, the patient not one in the best condition, the operation serious and extraordinarily protracted, and the specimen used, as we now know, impure. In a discussion that recently took place on this subject, Dr. Squibb, of New York, seemed to attribute the disastrous result in Sims's case to bromine poisoning, because bromide of ethyl is, as he phrased it, a loosely molecular article,[1] and might be decomposed in the system in such a way as to liberate the bromine and allow it to produce deleterious effects. Though a suggestion was made by Dr. Sims to have the specimen used examined for any deleterious impurity, Dr. Squibb expressed the belief that it was the irritant effect of the bromide of ethyl itself that did the mischief, and therefore thought examination for impurities scarcely required.

Dr. Wolff, a well-known pharmacist of Philadelphia, however, seems to have isolated this deleterious ingredient of the earlier specimens of bromide of ethyl. By redistilling at a low temperature the bromide of ethyl obtained by ordinary methods, he got a sample of ethyl bromide which seems to me to have little or none of the disagreeable odor distinguishing most specimens. He found remaining in the retort a small amount of acrid liquid, brown in color, which possesses the pungent, offensive odor I have observed in all the earlier bromide of ethyl manufactured. This was administered by him to a rabbit, to which he gave 20 drops, not by inhalation, for the quantity he had obtained was small, with the results to be mentioned. To this same animal 30 drops of purified bromide of ethyl had been previously given without deleterious effects. The heavy distillate spoken of, however, caused gastro-intestinal irritation, and death 18 hours afterwards; a post-mortem examination showed the

[1] Medical Record, April 3, 1880, p. 379.

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characteristic odor pervading the tissues, and the brain and abdominal viscera congested. Subsequently he killed another rabbit with inhalations of pure ethyl bromide, and found death occurring promptly with anæmic brain, and no perceptible post-mortem odor.

This then seems to me to show that Sims's patient died from the effects of this heavy distillate, existing almost certainly in large quantities in the specimen employed, and consequently given in great abundance, when nearly five ounces of the anæsthetic were used during the hour and half of operation. Hence, the death is attributable not to the bromide of ethyl, but to impurities easily avoided.

As far as the epileptic-like seizures, of which Dr. Sims speaks as having occurred during the anæsthesia, are concerned, I believe they were either the tetanoid manifestations spoken of above as liable to occur in any anæsthesia, or the result of the woman's previous epileptic condition. I have known an epileptic paroxysm to occur during etherization of an epileptic man.

Comparison with other Anæsthetics.—In order to obtain an estimate of the value of bromide of ethyl as an anæsthetic it will be perhaps profitable to view it in comparison with the other anæsthetic agents resorted to in surgery. Rapid respiration of ordinary air and nitrous oxide are only used for operations requiring a minimum of time; hence ether and chloroform are the agents with which we must compare bromide of ethyl.

It is found that ethylization can be effected more rapidly, and with much less quantity of the liquid, than is the case in etherization. The patient recovers consciousness and muscular co-ordination more quickly after the use of bromide of ethyl. There is, in the generality of cases, less struggling, and probably less tendency to vomiting than with ether, though I have seen the patient held with difficulty during the stage of excitement, and have known vomiting to occur and continue through a considerable period. The stage of excitement in all forms of anæsthesia, it must be recollected, is worse in those accustomed to alcoholic stimulation. When etherizing such patients with only one assistant present, it has frequently been my custom to secure the limbs with straps before commencing the administration of ether. I would scarcely expect to require this precaution in ethylization, though it might be needed in some instances. There is no danger of the vapor of bromide of ethyl igniting, for it extinguishes a lighted taper plunged into it. I have, however, seen specimens where the vapor would take fire, but these were evidently impure. The odor of the ethyl does not cling to the clothing as does that of ether. These two points I consider of great importance, for many burns have occurred from ignition of

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the ether towel, and the unpleasant nauseating odor permeating the clothing of the operator during visits to other patients is very objectionable.

If, then, bromide of ethyl is quicker in action, less offensive in smell, more ephemeral in effect, less dangerous in proximity to lights than ether, which is the oxide of ethyl, it should be used in its stead, provided that it is no more dangerous.

I have stated in the early part of this paper that I have not seen the hypersecretion of bronchial mucus occur, which in the use of ether usually annoys and has often occasioned me to partially invert the patient to allow its escape from the mouth. In this regard I feel sure that ethyl bromide has the advantage.

My own experience leads me to believe that its circulatory effects are similar to those of ether, namely, increased frequency and increased strength of pulse. Of this, however, we must learn from the physiological experimenter.

A case of angina pectoris to which I was called last week seemed to me to demonstrate the superiority of ethyl bromide to ether as regards, at least, smallness of dose and rapidity of action. The paroxysms from previous experience I knew to be of exceeding severity, causing opisthotonos and unconsciousness; and I remembered that, on a former occasion, morphia hypodermically was too slow to at once avert the occurrence of the rapidly repeated paroxysms of pain. As soon as I saw, after entering the room, the approach of a spasm of pain, I attempted etherization, because there was no opportunity to get the morphia ready. The ether in the small amount which I could get the patient to breathe seemed to increase his excitement, and made it difficult for me to control him. As soon as occasion allowed I administered a full amount of morphia subcutaneously, and, when the next paroxysm occurred, made him inhale a small quantity of bromide of ethyl. He soon fell asleep from the combined influence of the morphia and ethyl bromide, and all danger was past. How much was due to the anæsthetic it is impossible to say, but there was much less struggling than during the use of the ether. I had thought of chloroform, but was afraid to use that cardiac depressant in a case where angina pointed to probable cardiac debility.

As to the relation of bromide of ethyl to chloroform I shall have little to say for two reasons: first, I have had no experience with chloroform except in a few instances, where ether for some reason was not available; and, secondly, I dislike to even seem to advise its use. The statement of recognized authorities that death occurs after chloroform from cardiac paralysis, without warning, in the

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hands of old and experienced administrators; the records of some five hundred deaths after chloroform; the knowledge that chloroform is being supplanted by ether even in Great Britain—its former stronghold; the fact that general professional opinion would not sustain me if my patient should die under chloroform; and the recent statement[1] of a distinguished physiologist of New York that he dare not employ chloroform in his experimental laboratory, because the animals subjected to vivisection die unexpectedly and without assignable cause, convince me of the absolute impropriety of administering chloroform for the anæsthetic purposes of practical surgery. It is evident that mixtures of chloroform and ether come under the same criticism as chloroform itself, because the dangerous element is present and there is no evidence to inform the operator which anæsthetic is being breathed in excess at any given moment.

According to my experience and belief, therefore, we are limited to the use of two anæsthetics in the prolonged operations of surgery: the oxide of ethyl or sulphuric ether; the bromide of ethyl or hydrobromic ether. The latter has evident advantages over the former, but, if it be found to be more dangerous, we must discard it, and wait for further developments of science to give us a perfect anæsthetic.

Having given my own impressions of the comparative properties of ethyl bromide, I desire to give the opinions of some investigators who have directed their attention to the matter from different scientific standpoints than mine.

Dr. Ott, in the paper previously mentioned, says that bromide of ethyl increases the frequency of the pulse by an action on the heart itself; that ether increases it; but that chloroform, though at first increasing the pulse-rate, subsequently slows it by cardio-inhibitory stimulation. He also asserts that ethyl bromide increases the blood pressure, as does ether; but that chloroform reduces it by paralysis of the main vaso-motor centre and by cardiac debility. Dr. Wood, on the contrary, says that bromide of ethyl would seem to rival chloroform in its depressant influence upon the circulation, and that it probably shares the dangers of chloroform, which has been given many times with safety, though, as I myself have already said, it is too dangerous to be used.

Dr. J. C. Reeve, of Ohio, made some experiments upon himself with the agent, and states that it was pleasanter to inhale than chloroform, and infinitely pleasanter than ether.

What might be called a test case as to efficiency, and as to supe-

[1] New York Medical Record, April 3, 1880.

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riority over ether, is recorded by Dr. Adams, of Colorado.[1] Having but one drachm left after some previous use of the agent, he produced complete anæsthesia in an adult in three minutes. There was no nausea, repulsion, or cerebral excitation, and, immediately upon the exhaustion of the anæsthetic, she returned to consciousness. There had not been long enough insensibility produced by the single drachm to allow completion of the operation, and he then from necessity resorted to ether. This immediately caused vomiting, repugnance, and consequent resistance, followed by cerebral excitement. After the conclusion of the operation—a dental one—she remained nearly an hour before regaining consciousness. This is the report of a gentleman who has also recorded an instance in which alarming symptoms seemed to be due to the use of bromide of ethyl, hence he is not a partial advocate of the latter anæsthetic.

Thus, gentlemen, I have endeavored to give an unbiased statement of the claims of bromide of ethyl as an anæsthetic in surgery. If experience prove them to be well founded, and show that while being better than ether it is not more dangerous, its future is assured. Whether this occurs, matters little to any of us, except as searchers after truth, and as workmen who desire to use the best tools.

Pray remember the caution given by Dr. Levis, and which no doubt would be equally insisted upon by Dr. Turnbull, that, unless care be taken in administering this anæsthetic, death may occur, as it has occurred from the use of ether. Let our investigations of the subject be undertaken with every precaution, and if danger cannot be averted let us drop the bromide of ethyl into oblivion.

The facts that the use of this drug was revived by a Philadelphia writer, that its employment in surgery was popularized, and the records of previous investigation called to our attention by a Philadelphia surgeon, and that the best methods of manufacture and of purification are due to Philadelphia pharmacists, should give ethyl bromide a claim for consideration by this Society.

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NOTE ON THE ALKALOIDS OF CINCHONA.

By BENJAMIN LEE, M.D., Ph.D., F.A.A.M.,
OF PHILADELPHIA.

When the Countess of Cinchon, that noble lady who dared to share with her lord the perils of a protracted voyage over a stormy and almost unknown ocean, and the not inferior perils of a sojourn among the conquered barbarians of that land of fable—the New World—when this grand woman, I say, rising from her couch of languishing to find a new blood coursing through her veins and new delight in life, recognizing with gratitude the cause of her renovated existence, carried back with her to Europe, in 1639, samples of the wonderful febrifuge bark to which she owed her life, she was bringing in her little white hand a gift, the value of which outweighed all the golden cargoes with which her vice-regal husband freighted his big-wombed galleons.

The proud place of pre-eminence once occupied by the opium of the Eastern Ind, in the esteem of the profession, has been usurped by the quinquino of the Western. If the entire profession of this country could be interrogated as to what drug they could least afford to dispense with from their *armamentarium*, there can be but little doubt that with one voice they would reply—cinchona.

Quinia, its first discovered, is undoubtedly also its most active principle. Wherever malaria creeps stealthily over the land there goes up the cry for quinine. The modern general, when about to enter upon a campaign, is as anxious to secure his supply of quinine powder as of gunpowder. So universal a demand for an article comparatively rare even in its crude state, and requiring elaborate chemical analysis and expensive machinery to extract it, could not fail to enhance its price. No better proof is needed of the universal recognition of its value and of the general anxiety to diminish its cost than the unwise though well-meaning action of the American Medical Association (against which this Society vainly protested) in recommending the repeal of the tariff on quinine, and the almost unanimous vote by which that repeal was carried in Congress.

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Another indication of the same uneasiness, both in the profession and the public, is found in the constant effort to discover some remedy of less pecuniary value which shall equal it in remedial efficacy. No other drug, however, has yet been brought to light which can at all compare with sulphate of quinia in its febrifuge and its antiperiodic properties.[1] More encouraging results have followed the attempt to substitute for it certain of the other alkaloids and principles of the bark itself. The activity of modern chemists and improved methods of analysis have developed such a number of these as would greatly astonish Pelletier and Caventou.

The *Wood and Bache* of 1851 contains only three well-defined alkaloids and extractives—cinchonia, quinia, and aricina. Pereira, in 1853, named but one more—quinidina. The list has now run up to eighteen primary and seven secondary distinct active principles. They are as follows:—

Natural Alkaloids.

Crystallizable.	*Amorphous.*
Quinia.	Dihomocinchonia.
Quinidia.	Paytamia.
Cinchonia.	Cusconidia.
Cinchonidia.	Dicinchonia.
Quinamia.	Diquinidia.
Quinidamia.	Paricia.
Homocinchonia.	A liquid alkaloid unnamed.
Homocinchonidia.	
Paytia. Cusconia.	
Aricia. Javania.	

Artificial or Secondary Alkaloids.

Produced from the crystalline alkaloids by overheating or by certain chemical reactions.

Quinicia.	Quinamicia.
Cinchonicia.	Homocinchonicia.
Quinamidia.	Apoquinamia.

Protoquinamicia.

The chemical formulæ of the five most important of the natural alkaloids—viz., quinia, quinidia, quinamia, cinchonia, and cinchonidia—are as follows:—

[1] Salicin, piperin, phloridzin, the barks of the dogwood, the horse-chestnut, the tulip tree, and the root of the Virginia snake-root have all in turn been lauded as antiperiodics, but each has failed upon extended trial to justify the promise of its supporters.

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	Alkaloids.	*Sulphates.*
$C_{20}H_{24}N_2O_2$	Quinia (Qu),	$(C_{20}H_{24}N_2O_2)2H_2SO_4+7\frac{1}{2}$ or $8H_2O$.
	Quinidia (Qud),	$(C_{20}H_{24}N_2O_2)2H_2SO_4+3H_2O$.
$C_{20}H_{26}N_2O_2$	Quinamia (Qum),	Not crystallized for commercial uses.
$C_{20}H_{24}N_2O$	Cinchonia (Cinch),	$(C_{20}H_{24}N_2O)2H_2SO_4+H_2O$.
	Cinchonidia (Cinch'd),	$(C_{20}H_{24}N_2O)2H_2SO_4$.

One of these, it will be observed—quinamia—has not yet been crystallized for commercial uses; and two of each of the other four have, apart from their combination with an acid, an identical composition. The four which are in general use as remedial agents are soluble in pure water, without the aid of an acid, in the following proportions:—

Quinia	sulph.	sol. in	700	parts.
Quinidia	"	"	350	"
Cinchonia	"	"	50	"
Cinchonidia	"	"	130	"

We are now in a position to understand, in view of the immense number of active principles which this remarkable plant contains, why it is that—in many cases, as was long ago remarked—the bark itself will produce the desired effect, when sulphate of quinia has failed, after repeated efforts and protracted use, or has proved so irritating to the stomach that its exhibition has been thereby rendered impossible. Dunglison sagaciously remarks upon this point:[1] "The sulphate of quinia may be administered carefully and assiduously; and notwithstanding but little impression may be made on the disease (intermittent fever). In these rare cases the author has found cinchona at times successful—a circumstance which would appear to show that cinchona may contain other active antiperiodic principles besides sulphate of quinia."

Prof. George B. Wood, writing in the *United States Dispensatory*,[2] says: "When the object is to obtain the full influence of the bark, it may in some instances be advisable to administer it in substance. We can by no means be absolutely certain that quinia and cinchonia are its only active ingredients; and, even supposing them to be so, we are equally uncertain whether they may not be somewhat modified in their properties even by the therapeutically inert principles with which they are associated. In fact, bark in substance has been repeatedly known to cure intermittents when sulphate of quinia has failed." And later in the same article: "Though quinia possesses the anti-intermittent power of bark, it has not been certainly ascertained to be capable of exerting all the peculiar influence of that medicine as a tonic."

[1] Practice of Medicine, vol. ii. page 427, edition of 1848.
[2] Page 253, edition of 1851.

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Pereira[1] says similarly: "It has been asserted that the cinchona alkaloids possess all the medicinal properties of the barks, and may be substituted for them on every occasion" (the alkaloids known to him, it will be remembered, were quinia, cinchonia, and quinidina, only), "but I cannot subscribe to either of the statements." "While we admit that the essential tonic operation of the barks depends on the alkaloids which they contain, yet the latter are not always equally efficacious."

I make these citations not in order to prove the fact which they assert, for I am confident that the experience of every one present will corroborate it, but in order to show that the idea that quinia and cinchonia by no means represented all the virtues of the *Pulvis comitissæ* had long occupied the leading minds of the profession.

These two facts—first the costliness of quinine, and secondly the acknowledged virtue of the bark over and above quinine—have stimulated manufacturing chemists to the utmost to endeavor to separate the other active constituents and furnish them to the profession without the ligneous matter which often proves so objectionable in many ways.

Very interesting results have thus been brought to light. A searching series of experiments under the auspices of the English authorities in India developed the fact that in the fevers which are so rife in that tropical climate, quinidia was even more effective than quinia. Messrs. Powers & Weightman, of Philadelphia, are entitled to great credit for their perseverance in separating cinchonidia in a state of purity, and their persistence in urging it upon the notice of the profession. It is mainly owing to their efforts that this alkaloid has now so well-established a place in the Materia Medica. These alkaloids, however, are so valuable that their extraction has become as much a matter of course as that of quinia itself. Attempts have been made by combining them to produce an article which should represent nearly the remedial value of quinine at a lower cost. Hospital quinine is a combination of this nature which has met with considerable favor. Cincho-quinine, and dextro-quinine have not proved so efficacious. All these articles are open to the objection that they are either recombinations or modifications of compounding chemists or pharmaceutists, of principles already separated by the manufacturers. There is one preparation of this kind, however, which is meeting with much success in the malarious regions of our country, especially at the West, but which is as yet comparatively unknown with us, the manufacturers having probably wisely determined to introduce it first where it was most needed. It differs

[1] The Elements of Materia Medica and Therapeutics, vol. ii. p. 685, 1854.

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from those previously mentioned in the fact that it is not an artificial compound but a natural combination.[1] Its makers have given up separating cinchonidia and quinidia, and instead, leave them in their natural relations and proportions with the other alkaloids, except in so far as a small quantity of each is unavoidably removed in separating quinia. The expense of their separation is therefore avoided, and yet they are supplied to the profession in a form in which they are probably more efficacious than when isolated. In addition to these, however, about 15 per cent. of the alkaloid quinia is also allowed to remain. Careful analysis of this article, to which the name of quinquinia has been given, shows its composition to be about as follows:—

Quinia alkaloid	15 per cent.
Quinidia "	15 " "
Cinchonidia "	15 " "
Cinchonia "	25 " "
Chinoidine, purified, alkaloid . . .	30 " "

Being, as already stated, neither an artificial combination nor an exact chemical principle, the proportions of its constituents are subject to a slight degree of variation, in accordance with the peculiarities of different specimens of bark. It is readily soluble with the aid of acids, and can be prescribed in the same combinations and about the same doses as quinia. I have used it myself in powder, in cachets, and as an elixir. As an antiperiodic, I have had no opportunity of testing it; but as a tonic in cases of nervous debility, of exhaustion from suppuration, and of neuralgia. I have seen marked benefit result from its use in doses no larger than those I am in the habit of giving of quinia. I have been particularly struck with the promptness of its action in neuralgia—the paroxysm yielding sometimes very shortly after the remedy was exhibited. One advantage which it possesses over quinine alone is the fact that it is much less likely to produce serious cerebral disturbances. It is of course not equally tolerated by all stomachs, but in some cases where quinine and chinoidine had produced vomiting, it was retained without discomfort. Should it prove to be as valuable an extractive as experiment so far would seem to indicate, the benefit which its manufacturers will have conferred upon society may be appreciated when it is stated that it can be furnished for about one-third the price of quinine.

1503 SPRUCE STREET, PHILADELPHIA, May 17, 1880.

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[1] This extract is the product of the laboratory of one of the three recognized quinine manufacturers of the country, Messrs. Charles T. White & Co., of New York.

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ENUMERATION, CLASSIFICATION, AND CAUSATION OF IDIOCY.

By ISAAC N. KERLIN, M.D.

Gentlemen: Before presenting to you the topic I have chosen for your address on Mental Disorders, I need to say that the appointment of last year was made on the occasion of your excursion to and meeting at the Pennsylvania Institution for Feeble Minded Children, Media. I gratefully acknowledge the appointment, as complimentary to the work which that State Medical Charity is doing, and therefore feel imposed upon me a presental of some of the features of the special infirmity which it is there attempted to alleviate, as a proper response to the choice which introduces me to your attention and patience at this time. I shall aim to be brief.

Numbers of Idiots and Imbeciles.—Attempts have been made in most countries which take a census of population, to ascertain the number of their idiots and imbeciles. Omitting statistics relating to England, Scotland, etc., I will mention that in the United States the number of idiots in 1870 was 24,395. The total population was 33,592,245, or 1 idiot or feeble-minded person to 1376. The great inaccuracy of this return is known to all who give the subject any attention, and the reasons are obvious upon a little reflection. Parents cling to the slightest promise that a feeble-minded child is not so. Friends are very slow to draw the veil from their neighbors' eyes. Physicians are lenient or mistaken in judgment, either promising that the child will "come all right" at or after puberty; or profoundly mistaking the nature of the case, misname the real condition.

These are a few of the almost insurmountable causes for incorrectness in census returns, which, added to the proverbial carelessness of the whole method, reduce the tables to approximates only.

The number of idiots in Illinois, according to the census of 1870, was 1244. A census taken with special effort to be accurate by the

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Board of Public Charities in the same year, drawn from correspondence with practising physicians, made the number 1738; but there were evidences of great unreliability in even the latter, *e. g.*, Cook County (containing Chicago), with a population of 350,236, reported no more idiots than Morgan County, with a population of only 28,500! The result of the investigations of the State Board of Charities of Illinois was a published opinion that the number of idiots was greater than the insane, and that the ratio was at least 1 in 867 of the entire population.[1] Apply these figures to our State of Pennsylvania and we should have at least 3500, of which I think the following computation as to the social standing of the whole number is nearly correct: 717 are in families of ample ability to furnish support, either in their homes or as pay patients in asylums; 604 are in families of well-to-do mechanics, or middle class people, who are endeavoring to keep them at home, because not quite able to support them in asylums at the present onerous charges; 1619 are in poor families, unable to pay for support away from home, yet unwilling to relieve themselves of a painful burden by casting these children into almshouses; 560 are in homes degraded by vice and intemperance, or are at public expense in almshouses, etc.

Now, the census for 1880, planned with some care to get returns on this special subject, contains in the plan a vital error: it demands the number of *idiots* in a community or family; the most offensive popular designation, although the most scientific, should have been avoided; but used, very few parents will acknowledge to the sad possession of an *idiot*, and they will in the returns of 1880, as in those of 1870, be enumerated again in the general population.

In broader statement then, where is this large fraction of our defective population? Shut up either in almshouses with the aged and corrupt, or in asylums with the insane; in our cities confined in upper chambers or to back yards, out of sight it may be, but never out of mind of the stricken parent; in our villages denied the public school, and a nuisance or an annoyance to the community wherever found, wearing out the lives of mothers, and shadowing the highest and lowest homes; depreciating life; retarding work: themselves wretched, and making others still more so, a few only of the entire class receive advantage from even the best appliances of home training and surroundings.

Public conscience has fully awakened to the condition of the insane, a form of disease not so easily veiled, and more dangerous in its manifestations than idiocy. Asylums and hospitals of unstinted

[1] Idiocy and the Treatment of Idiots. Dr. C. T. Wilbur, 1877, p. 6.

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proportions and expense are everywhere being erected for the insane; THIS IS RIGHT. How soon will public conscience take up these *innocent victims of our own irregularities and false living*—the feeble minded—and give them "their meat in due season?" That progress is made is shown in this, that in all countries named as having taken special census tables of idiocy, INSTITUTIONS FOR FEEBLE-MINDED CHILDREN have been organized.

In England are three noble institutions, sheltering each from 300 to 800 inmates, besides numerous smaller establishments. In Scotland there are three, in Ireland one, in Canada one. In Australia one was founded in 1872, and has now 160 inmates. In Germany there are fourteen, mostly private. In Saxony four, in South Germany three, and in Denmark one.

In France there are but four, and these are small. As Dr. Seguin states, "France has fed other nations from her lamp, and has let her own nearly go out;" but recently the general council of the Seine has decided to make a colony for the education of idiots and imbeciles, who are to be taught farm labor, and are to be under the supervision of a chief physician, with medical assistants.

In the United States the first institution was opened at Barre, Mass., by Dr. H. B. Wilbur in July, 1848, and within a few weeks thereafter Dr. Howe opened a State Institution at South Boston.

The following table is a list of the institutions in the United States at this date:—

Institution.	Character.	Superintendent.	Organized	Inmates.
Massachusetts, Barre.	Private.	Dr. Geo. Brown.	1848	90
" S. Boston.	State.	" Geo. G. Tarbell	1848	120
New York, Syracuse.	"	" H. B. Wilbur.	1851	280
Pennsylvania, Media.	"	" Isaac N. Kerlin.	1853	320
Connecticut, Lakeville.	"	" Robt. Knight.	1858	100
Kentucky, Frankfort.	"	" J. Q. A. Stewart.	1860	130
New York, New York.	City.	.....	1860	200
Illinois, Lincoln.	State.	" Chas. T. Wilbur.	1865	290
Ohio, Columbus.	"	" Geo. A. Doren.	....	480
Iowa, Glenwood.	"	" O. W. Archibald.	1876	150
Indiana, Knightstown.	"	Mr. B. F. Ibach.	1879	30
Minnesota, Faribault.	"	Dr. Geo. Knight.	1879	20

CLASSIFICATION OF IDIOCY AND IMBECILITY.—The definitions and classifications of idiocy and imbecility are so numerous that in this paper they can receive only a brief notice. Dr. Seguin assumes that the mental and moral features of idiocy are dependent on conditions of the nervous system, and proposes a classification based upon the seat or location of these underlying physical conditions. "The remote cause or source might be physiological or pathologi-

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cal, the immediate cause was in abnormal conditions, either of the central nervous masses or in the nervous apparatus radiating from those centres, and which connects them with the individual environments." Proceeding from this, Seguin speaks of the essential forms of idiocy thus:—

"1st. The chronic affection of a whole or a part of the central nervous masses, which is characterized as *profound idiocy.*

"2d. A partial or total affection of the nervous apparatus which ramifies through the tissues and presides over the life of relation, the result of which is *superficial idiocy.*"

He also describes a class of cases under the head of "backward children," in whom there seems to be a mere functional torpidity of the nervous system.

He refers at length to the many maladies with which the different forms of idiocy may be accompanied, speaking of them as *accessory*, and predicting that there is a certain relation between these accessory maladies and the primitive infirmity itself. Dr. H. B. Wilbur, whose experience has been larger than that of any other observer in this country, is "disposed to leave the subject of classification on this physiological basis where Dr. Seguin placed it more than thirty years ago."

Dr. W. B. Ireland of Scotland, a prominent writer, has attempted a classification of idiocy based on pathological conditions; he gives his reasons very tersely: "I found it was necessary to have some arrangement in order to say clearly what I wanted to say.

"Coming to the study of idiocy after having gained some experience in medicine, I have from the beginning reviewed it from the standpoint of pathology, and my idea of idiocy is compounded of the following classes which are generalized from individual, existing idiots, who resemble one another by having the same or similar disease, as they resemble the type of idiocy by having mental deficiency along with a corporal disease.

1. Genetous idiocy.
2. Microcephalic idiocy.
3. Eclampsic "
4. Epileptic "
5. Hydrocephalic "
6. Paralytic idiocy.
7. Cretinism.
8. Traumatic idiocy.
9. Inflammatory idiocy.
10. Idiocy by deprivation."

The terms employed explain themselves, excepting Genetous idiocy, which is made by the author to comprehend cases whose pathology cannot be properly diagnosed until after death, "such as those cases of inflammation of the brain occurring prior to birth." In his further descriptions he evidently remands a large proportion

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of his cases to this variety, and it comes to be his *limbus*, for what is at best an obscure study.

Another attempted classification by a celebrated Englishman, Dr. J. Langdon Downs, is interesting to mention; it may be called an ethnic or physiognomical classification. A curious type has been found at home and abroad, which, from the dwarfishness of the individuals, obliquity of the eyes, broad face, loose dirty yellow skin, and squat figure, has been called Mongolian or Kalmuck; a singular co-relation is found in all these cases, viz., a furrowed, uneven tongue which is caused by an excessive fungiform growth of the papillæ. So habitual is this that the observer familiar with the forms and faces of this type of idiocy may hazard the opinion unerringly that the tongue is also malformed. Dr. Downs has noticed what he is pleased to call an American Indian type, and describes others as arranging themselves under Ethiopian and Malay varieties.

Dr. H. B. Wilbur[1] has written interesting papers, endeavoring to substantiate and amplify to our present needs Esquirol's classification of imbecility based on degrees of speech.

There is still another effort at classification not unlike that of Dr. Downs, and even more fanciful, which, based upon supposed resemblance of individuals to lower animals, fosters the notion that idiocy, especially in its most profound congenital types, is an arrest of development at embryonic periods corresponding with a theoretical evolution of the human fœtus, through the stages of life in its lower orders. It is as vague as unpractical, its only value that it furnishes a few appropriate names by which to denominate some of the one-sided and strange anomalies presented in our institutions. It will now be understood that each case of idiocy and imbecility presents a great number of facts on any one of which or on groups of which a classification may be based.

Etiology of Idiocy.—The further remarks of this paper will be confined to the Etiology of Idiocy, as suggested by a study of one hundred cases recently collated in tabular forms from material which has been slowly obtained. I cannot vouch for the reliability of the tables herewith furnished further than to say that great care has been exercised in the choice of our correspondents; the cases are not selected to expound or to antagonize any particular bias of opinion; also any error, originating in unreliable correspondence or

[1] Dr. H. B. Wilbur's paper, Classification of Idiocy, Transactions Am. Assoc., etc., 1879, from which these paragraphs are condensed.

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from the intrusion of those elements of coincidence and chance which affect any tables embracing small numbers, may be corrected in the future, as this is a single series of ten (that is 100 of 100) on which we are now working.

In the descriptions and tables herewith presented I have followed Dr. Griesinger in naming two conditions of IDIOCY—the *apathetic*, and the *excitable;* and under these have classed as IDIOTS those whose intelligence is so slight that we can detect no reasonable basis on which to give anything more than asylum care so long as they shall live; that is, subjects for habit training only.

I have thrown the class IMBECILE into three groups—five or six might have been made—the individuals of the lowest dropping almost into idiocy, are susceptible of some culture of the hand and eye, have a slight command of language, sign or vocal, in communicating their desires and a low degree of attention, imitation, etc. The middle grade imbeciles are much superior to the low, while the high or best grade are possessed of all the attributes of intelligence in a limited degree; they are taught to read and write in some instances fluently, to calculate minor questions of arithmetic, and approach the lower range of common intelligence in their relations to life as found among the ignorant; in their most advanced grade they are lacking only in those powers of discrimination, judgment, and will power, the attributes of a sound man; if they exercise them at all it is in mimicry of associates and superiors, rather than from their personal possession. I also recognize a condition analogous to *excitable* idiocy, among *imbecile* children whose mental powers are susceptible of normal development, but whose will power and discrimination of right and wrong seem to be strangely perverted from infancy. I have chosen to call these, instances of Juvenile Insanity, following for the name the excellent lead of some distinguished writers.

In the tables which follow, these classes and grades are thus represented—

Apathetic idiots.	Middle grade imbeciles.
Excitable idiots.	High or first "
Low grade imbeciles.	Juvenile insane "

Four tables are herewith transmitted—

No. 1 is a birth table of 100 families containing one or more imbecile children, giving the sex, number, and conditions of health of all dead and all living children in the families, together with the ages of parents at the birth of the oldest living idiotic or imbecile child represented in these tables.

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No. 2 is an order of birth table, showing the relations in these respects of the 100 idiotic births, with 566 total births, in the 100 families under observation.

No. 3 exhibits sex and condition of 566 children, in the 100 families.

No. 4 is an aggregate table, which, if understood and intelligently used, will show the concurrent elements of sex, social habits, and neurotic or other influences in the production of these one hundred idiotic and feeble-minded children.

Following some of the suggestions of these tables, I present these remarks:—

SEX.—Has sex any predisposing influence in the production of idiocy?

It is a noteworthy fact, that of the applications for admission to the institutions, both of this country and of Europe, the males greatly outnumber the females. At the extensive institution of Earlswood, England, the males are twice as numerous as the females.

Of 1399 cases known to the writer, 925 were males, and 474 females; or as 195.12 to 100.

Independently of the circumstance that, in rural sections, female idiots being more easily managed at home, are consequently less frequently brought to the notice of superintendents of institutions, there is reason to believe, that very many more male idiots are born and survive, or very many more males become so before their fifth year, than females. We find this opinion sustained in the valuable statistics of Illinois, made under the co-operation of the Board of Public Charities, and the physicians of that State. Of 1736 living idiots reported, 1061 are males and 675 females, or as 157.18 to 100; and this against the fact of the greater mortality of male than of female infants. "At almost every step of life," says Dr. Stark, of Scotland, "males have a greater liability to death, and a higher death-rate, than females." This is familiar to all; so that the disparity between male and female numbers in statistics of *living* idiocy becomes still more exaggerated and remarkable. Deafness, muteness, and blindness, when congenital, seem to be more largely apportioned to the male sex.

In Table No. 3 we find there were born in the 100 families under observation 309 males, 239 females, and 18 (stillborn) whose sex was not given, and that of the 122 *idiotic* children, in same families, 86 were males, and 36 females.

We have here suggested—

1st. Has the brain of a male a more complex or higher organiza-

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tion, that it becomes more sensitive to prenatal injuries, and later morbific influences? or is it weaker that it yields to them?

2d. Is there a physiological law of limitation tending towards the extinction of diseased or debilitated families and races, one factor of which is *that fewer females are conceived* in such families; and as a corollary of this, what are the facts as to fecundity of these females, and the physical and mental health of their offspring?

There are no statistics of which I have information sufficiently extended or accurate to answer these interesting questions.

Twin Births.—Twin bearing has been referred to by Dr. Arthur Mitchell,[1] of Edinburgh, as an abnormality, exceptional and indicative of an imperfect development and feeble organization in the product.

He states that among imbeciles and idiots, a much larger proportion is found to be twin born than among the general community, and that there is a numerical excess of *females* among twins.

We find on examination of 565 deliveries occurring in the 100 families, under our present consideration, there were 7 twin births, which is precisely the same proportion as one twin birth in eighty deliveries, the average in the general population of Edinburgh.

Body and Brain Exhaustion of Parents.—Is body and brain exhaustion of parents a cause direct or indirect in the production of idiocy? That this condition does augment the numbers of the *insane*, is an undoubted fact, and that it enters as the concurrent agency of congenital imbecility I must believe, from the frequency with which the history of our cases is accompanied with melancholy acknowledgments that the mother, during her gestation, was overworked; consumed with anxiety; or had been weakened by the nervous drain of nursings and frequent pregnancies; in short, in a condition of brain and of body unfit to be the repository of a healthy fœtus.

In the history of our one hundred cases, occur twenty-five instances of the disaster of idiocy being partially referred to overwork, over-anxiety, etc.

To those gentlemen who would have us believe that the affiliation between the fœtal ganglia and the mother's brain is not of much importance, because they discover no nervous connection, this will be without force; but if we read aright, predisposing causes of idiocy and imbecility may be found in over-exhaustion, ill-health, morbid or real anxieties, fright, or other nervous derangement of

[1] Fecundity, Fertility, and Sterility, by J. Matthews Duncan, A.M., M.D. Wm. Wood & Co., New York, page 68.

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the pregnant woman. Perhaps enough importance is not attached by physician or family to the sacred right and requirement of the pregnant female, for prudent and constant attention; at least for the kind of mothers who produce my patients. She is herself seldom mindful of the close alliance between her own body and the developing germ within her, or, if so, is the victim too often of the most fanciful and pernicious delusions. Most child-bearing women are either overworked to drudgery or are insufferably idle; over-exhaustion of the body and hyper-exaltation of the nervous centres are undoubtedly often reflected back upon the child in utero, through an innutritive or a poisoned blood, producing a feeble rudimental system, and leaving mother-marks indeed, which may never be outgrown.

Maternal Impressions.—Allied with the last is a consideration of the impressionability of the mother's brain to some special object, apprehension or emotion, so strong as to affect the physical integrity of the fœtus. The proverbial garrulity of these midwives' stories, and the absurdity of most of them, has almost remanded this class of narrative to the realm of ghost-lore and fancy.

Without discussing the subject, I will state that in seven instances of our table, the unfortunate progeny is somewhat rationally referred to something of this kind, which, remaining as a scare-devil in the imagination of the mother until the child's birth, has assumed to her mind all the strength of a conviction, that it is the only cause for her child's condition. Without quoting any of the amusing illustrations with which our correspondence is burdened, I will give but one, in which the mother's story singularly suits the object to which it refers; and as I can at this time furnish no hereditary or other very obvious solution of the child's idiocy, it is fair to give it, as a good case for those who respect the theory of maternal impressions sufficiently to suspend judgment while accumulating facts. The following is the mother's statement: "I have always thought Ella's wonderful condition purely the result of my visit to Barnum's Museum in my third month of pregnancy, and that she was marked from my having seen the "What is it," on which my attention was singularly and persistently fixed, and which she resembles. It was during the war, and I was suffering from nervousness and debility, besides doing the most of the work for my family."

I never saw Barnum's "What is it," and cannot corroborate the mother's statement of a resemblance, but am willing to say that it is a good name for my poor little patient.

Consanguinity of Parentage as a Cause of Deterioration of Offspring.—Nothing more elaborate on this subject has appeared

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since the report of Dr. S. M. Bemiss, of Louisville, to the American Med. Assoc., session of 1858, and I think the statistics of most of our institutions will sustain that report, at least so far as to agree that the child of a consanguineous union is liable in an increased degree to the inheritance of any mental, or physical ailment that might enter it by this double current of a single blood; and, further, the belief gains ground that as tendencies to grave diseases may remain latent in families for a generation to develop a fearful growth in a second or third generation removed, so union of cousins, against which there is now no obvious physical objection, is still unsafe; and, as upright people, they are without a moral sanction to inflict an unusual risk of transmitted disease upon a line of children.

From our field of observation—the institutions for imbeciles—there are as yet but scanty returns on this subject. Mrs. Dr. Brown, of the institution at Barre, Mass., reports as follows:—

"Of the 225 defectives who have been under our charge, 8 (perhaps others) were the children of first cousins. As two of these came from the same family they should be reckoned as one in estimating the ratio, which would then stand 1 to 32. Of this number five were epileptics, one a microcephalic idiot of a low grade; the remaining two sickly, feeble children, imperfect, and backward in mental capacity. All the parents were persons of good education, with physical health and vigor fully equal to the American average, and of social and moral standing above the average. Of the whole number of children (31) resulting from these 7 intermarriages, 15 were epileptic, 2 died early of pulmonary hemorrhage, 8 were physically feeble, and 1 was a microcephalic idiot; leaving only 5 (one-sixth of the total) of average mental and physical condition."[1]

Dr. Grabham, of England, physician to the great hospital for idiots at Earlswood, found that in eleven only of 543 cases of idiocy the parents were first cousins; in these no other cause could be ascertained.[2]

Dr. Howe furnishes the statistics of 17 families, the heads of which were blood relatives intermarried, which are extraordinary, and only to be accounted for by the intense associated heredity of scrofula, intemperance, and misery. "There were born unto them ninety-five children, of whom forty-four were idiotic, twelve others

[1] Offspring of First Cousins. Proceedings of American Institutions for Idiotic and Feeble-minded Persons, p. 59. J. B. Lippincott & Co., 1879.

[2] Remarks on Origin, Varieties, and Termination of Idiocy. By G. W. Grabham, M.D., 1875.

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were scrofulous and puny, one was deaf, and one was a dwarf. In some cases all the children were either idiotic or very scrofulous and puny. In one family of eight children, five were idiotic."[1]

To the statistics already furnished we will add our own, as contained in our table of 100 families. Of these, intermarriage of *first cousins* exists in 2 families; of second cousins, 2 families. There were born to these 20 children, of whom—

5 died young;
1 was epileptic;
3 were consumptive and otherwise defective;
6 were imbecile;
5 were healthy.

It is possible that the influence of consanguinity in the production of idiocy has been overestimated, for it certainly does not account for fifteen per centum of the total number, as has been given. The figures of Dr. Grabham are probably much nearer the truth. Nor must it be concealed that, if into these families strict inquiry were pushed, it would be developed that in the previous generation, if not in the immediate, *concurrent cau es* are working parallel with the consanguineous marriage in the production of a feeble-minded child; hence, where hereditary predisposition exists, such marriages are often followed by a fearful entail of misery; but, where no such hereditary predisposition exists in immediate ancestry, we must look on a marriage of the same blood as a dangerous experiment at best, because in atavism we have a long bow which may project a deadly shaft over the generations into the one so interwed.

CONCURRENCE OF CAUSES: PHTHISIS PULMONALIS, ETC.—*That hereditary predisposition* is the stalwart force in the production of idiocy, as of most of the ailments and evils afflicting humanity, has been freely stated, but not so absolutely proven; and, because so many healthy people are born into the world out of conditions most prophetic of evil, many are slow to accept the proposition.

But subjectively it would seem that congenital idiocy is due to a *concurrence of several and not to any single cause* affecting an individual birth; not always striking twice in the same family in the same form of mental disease, because other groupings of these causes during individual pregnancies may induce a miscarriage, a still-birth, a scrofulous or otherwise defective child, the latter possibly to develop a neurosis or an insanity in later life. Nor must

[1] Report of Dr. S. G. Howe and other commissioners to the Governor of Massachusetts, Feb. 26, 1848.

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we lose sight of this saving fact already referred to: while the law of heredity is still a very undetermined one, while that of atavism is ordinarily applied and thought of as the bridging over of a disease or of an objectionable physical quality, from a remote generation to that existing, still it is true that atavism works to the highest conservation of the species in the transmission of the *best qualities* of antecedent generations, quite as often, perhaps, as of the bad; thus it is that in some of the afflicted lines in which we are to-day studying idiocy and insanity, we are having many if not a majority of sound children; this fact should point the physician to the importance of an earnest teaching of hygiene in families over which rest the sombre hues of an unpromising heredity.

In no department of medical practice can the physician be more efficient than in the timely and judicious treatment of families of the so-called scrofulous diathesis. Our inquiries show us the presence of phthisis to the extent of 56 per cent.[1] in one or both families ancestral of the idiot child. Apprehending this, all sensible cautions in the family life where this diathesis is strongly present should be taken to avert the greatest calamity and the most intense grief that can enter a home.

Dr. Grabham in his examination of the papers of 249 cases admitted to the Earlswood Institution, finds that in 55, or 22 per centum, there is history of phthisis in the parents or near relatives; in 17 per cent. no other cause for the idiocy is given. The tables presented with this paper if prepared by a special advocate to prove that consumption is the main factor in the generation of idiocy, could not be more startling. As they are the result of careful inquiry without any theory to prove or disprove, I ask for them your respectful judgment in this as in other details which they present.

In the 100 families represented in them and in each of which occur one or more idiotic children and often other defectives, consumption is stated by our correspondents as found in the—

Paternal grandparents	of 17	of 100	idiotic children.
Maternal "	of 27	"	"
Fathers	of 22	"	"
Mothers	of 27	"	"
In grandparents and parents	of 23	"	"
In grandparents on both sides	of 6	"	"

That is, we have consumption as a possible factor of idiocy in 56 families of the 100.

[1] See Table No. 4.

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ALCOHOLISM IN THE PRODUCTION OF IDIOCY.—A more difficult question to investigate *is the effect of alcoholism in the production of idiocy.*

I will quote the English results from a recent publication[1] by Dr. Shuttleworth:—

"From a scrutiny of the histories of 200 male and 100 female congenital idiots the following statistics are derived:—

Of the 200 males, 9 had intemperate parents, classed thus: 7, intemperate fathers; 1, intemperate mother; and 1, both parents intemperate.

Of the 100 females, 7 had intemperate parents: in 2 of these cases the mothers were intemperate, and in 5 the fathers were intemperate.

Of the 300 patients, 16 had intemperate parents, 8 of whom are described as habitual and 8 as occasional drunkards.

Applying to the examination of these 300 cases a method akin to that suggested by Dr. Bucknill for the estimation of the drink-etiology of insanity, they may be arranged in the following classes:—

	Males.	Females.	Total.
CLASS A.—Parental intemperance the direct or only ascertained cause	4	5	9
CLASS B.—Parental intemperance complicated by hereditary tendency to insanity or nervous disease	2	0	2
CLASS C.—Parental intemperance complicated by adverse physical circumstances affecting parents (*e. g.*, ill health, phthisis, and consanguinity)	1	2	3
CLASS D.—Parental intemperance complicated by adverse mental circumstances (*e. g.*, emotion or anxiety of the mother while pregnant, etc.)	2	0	2
Total	9	7	16

I must remark that it is impossible to single out from our Pennsylvania statistics any of the above-named classes. In our one hundred cases it is already seen that *consumption* is an accessory fact in 56 cases, but probably not the only cause in a single case; for examples see Tables; and so it may be said of alcoholism.

From the following remarks I cannot but believe that Dr. Shuttleworth saw the incompetency of his tables, and the impossibility of making any unit a cause of idiocy. He says: "Congenital idiocy

[1] Shuttleworth, Intemperance as a Cause of Idiocy, Proceedings of American Institutions for Idiots and Feeble-minded Persons, 1879, p. 49.

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is probably not, as a rule, the *immediate* legacy of the drunkard to his offspring. Doubtless, however, physical and mental degeneracy in diverse but correlated forms is the *entailed inheritance* of the drunkard's posterity; scrofulous disease, epilepsy, nervous instability, and moral obliquity being, perhaps, the more direct bequests. It needs, however, but one step more, especially if the conditions continue unfavorable, to arrive at idiocy, and thus sometimes in stern literalness is visited the iniquity of the fathers upon the children to the third and fourth generation."

I will add that drunkenness is doubtless a very common factor of PAUPERISM; sometimes its cause—as often its sequence; and MISERY, born of both, by its legacy of instability, lack of force, and feebleness of body, is certainly the most common factor of idiocy.

Statistics confined to the pauper and lowest population would doubtless show a fearful amount of parental drunkenness and vice, against which may be charged again idiocy and all its congeners of low vitality, paralysis, consumption, still-birth, juvenile crime, and so on through the list.

Nos. 7, 18, 39, 61, and 64, etc., of our own tables read through will illustrate this point. But statistics taken from the general population, such as are represented in Dr. Shuttleworth's and our own, will give moderate estimates only for intemperance as a "direct cause" of idiocy.

There is a vast amount of writing which these tables might elicit, but I cannot command more of your time. These one hundred cases are submitted to you, and the method adopted in this investigation. The latter may be quite imperfect, but it is presented to the medical profession of this State for co-operation and for the suggestion of such improvements and additional inquiries as will open this whole subject fairly to the judgment of sanitary science and hygienic medicine.

Permit me to conclude by saying that I think this investigation already foreshadows some prominent points:—

1st. Through the profession of medicine only can come true and saving views as to marriage, child begetting, child rearing, and race culture.

2d. As a very large proportion of imbecile children are first-born, and as a very large proportion of imbeciles are said to have been delicate in their infancy before any imbecility was noticed, may not the skill and attention of the physician be exercised more directly for the instruction of young mothers in the intelligent care of their conceptions and of their babes, especially in families where hereditary tendency to mental and other disorders is known to exist?

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3d. It will be seen by our tables that, in 10 families of 100 imbecile children, there have been infelicities and antipathies arising from unsuitableness of the parties in contract to live with each other, and of a character so unfortunate that the parents have been willing to state these as the supposed cause of their children's congenital blight. Is there not in this a suggestion that a better race will be developed when women shall regard a shameful and unfortunate marriage as more shameful than dying unwedded, and when all shall grant a difference of nobility in favor of a cultured and useful unmarried woman over an unsuccessful wife and unfit mother?

4th. If in 25 per centum of idiocy there is maternal anxiety and overtax sufficient to enter as a direct or accessory cause of the child's infirmity, may we not urge as a rule that, during the whole gestative period, safety to the body and brain of the embryo demands exemption of the mother from exhaustive duties and hyperexaltation of the nerve centres, either in housework or in frivolity, particularly in families of neurotic and consumptive disorders?

5th. That 56 per centum of idiocy should descend from strumous and consumptive families impels the conclusion that any prudent man or woman should avoid intermarriage with this diathesis, if through such union he or she intensifies this condition in a line of children of feeble bodies and frequently defective minds.

6th. That in 27 per centum of cases of idiocy we find as a concurrence *imbecility and insanity begetting idiocy*[1]—introduces a very serious question for the law of the State to settle, viz., whether marriage of the evidently unfit shall be tolerated, and whether pauper imbeciles shall continue to entail on the community a burden of woe and expense that heaps up in misery the further it descends.

It seems incredible that, in an enlightened community, a woman should go on giving birth in succession to five microcephalic idiots, three of whom survive to be supported at the expense of the State so long as they shall live.

It seems incredible that a female insane pauper should have been discharged two successive times from a county-house, returning to a drunken husband to become twice enceinte with defective or idiotic progeny.

It seems incredible that a husband living with a wife who is known to be insane should go on bidding into being successive imbeciles and incompetents, apologetically explaining that his wife was in better health while enceinte.

[1] See Table No. 4.

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It seems incredible that there should be a county in Pennsylvania where the inbreeding of paupers and pauper imbeciles of the same parentage is possible, until a large family of wretched creatures is issued to scatter and propagate an infamous blood.

All this seems incredible; but—

> "'Tis true; 'tis true, 'tis pity;
> And pity 'tis, 'tis true."

I thank you, members of the Medical Society of Pennsylvania, for the patient hearing upon a subject in which you cannot as busy practitioners be directly interested, but in which as scientific physicians you must see most surely a broad field in which to make the richest discoveries for the healing of the deepest ills which afflict humanity. Perhaps the faithful study by medical men of the poor idiot and the innocent imbecile will yet lay bare to us the fulfilment of that prophecy of Descartes: "If it be possible to perfect mankind, the means of doing it will be found in the medical sciences."

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TABLES

EXHIBITING THE

CLASSIFICATION AND CAUSATION OF IDIOCY.

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TABLE

No.	Sex.	Order of birth.	Grade.	Condition.	History of pregnancy, birth, and infancy.	No. of births.	Brothers and sisters.
1	M.	6th	Imbecile, low.	.....	Mother in feeble health; labor difficult; child did not walk until three years old.	8	5 *brothers*, 1 of whom imbecile; 2 dead. 2 *sisters*, one of whom defective.
2	M.	1st	Imbecile, middle.	.....	Mother had family troubles in early stage of pregnancy, requiring her to leave home.	10	7 *brothers*, one stillborn, 3 dead. 2 *sisters*.
3	M.	5th	Imbecile, low.	Epileptic, hydrocephalic.	Condition ascribed to scarlet fever; convulsions in early childhood	13	7 *brothers*, 2 of wh'm stillborn. 5 *sisters*, all dead.
4	M.	7th	Imbecile, first.	Hydrocephalic.	Premature birth from fall of mother. Evidences of hereditary syphilis in child's condition; has now drink-craving.	9	2 *brothers*, 1 stillborn. 6 *sisters*.
5	M.	1st	Imbecile, middle.	.....	During pregnancy in severe distress of mind because of husband's inattention.	5	3 *brothers*, 2 of wh'm consumptive, 1 stillborn. 1 *sister*, consump.
6	F.	2d	Imbecile, middle.	.....	A very weak infant, not walking until 3 years. Has valvular insufficiency.	4	2 *brothers*, 1 defective. 1 *sister*, dead with phthisis.
7	F.	1st	Imbecile, first.	"Moral idiot."	Mother young and respectable, marrying a vagrant; pregnancy attended with hardships and sorrow.	2	..... 1 *sister*.
8	F.	1st	Imbecile, first.	.....	Infant strong in body, but singularly quiet. Father deserted his family during this pregnancy.	4	1 *brother*. 2 *sisters*, both dead, one with phthisis.
9	F.	1st	Imbecile, middle.	Mute.	Mother ascribed condition to fright during pregnancy. Idiocy observed when 6 weeks old.	4	2 *brothers*, 1 died with phthisis, 1 *sister*.
10	M.	1st	Imbecile, low.	Hydrocephalic, mute.	Moth. hard-worked and anxious during pregnancy. Infant very late in walking, etc.	7	5 *brothers*, 1 died. 1 *sister*.
11	M.	5th	Imbecile, low.	Microcephalic, choreic.	Purulent ophthalmia and supplemental fingers at birth. Mother easily frightened — miscarriage of twins due to scare.	7	3 *brothers*, 2 of them stillborn twins. 3 *sisters*, 1 of them dead.
12	F.	3d	Imbecile, low.	Hemiplegic, microcephalic.	Mother in constant dread from father's drunken caprices.	5	2 *brothers*, 1 defect., 1 d. with phthisis. 2 *sisters*, 1 twin to case, both dead.
13	F.	9th	Imbecile, first.	Epileptic, hydrocephalic.	Reputed healthy, and free from hereditary tendency. Ascribed to a fall; no external evidence of traumatism.	9	1 *brother*. 7 *sisters*, 1 defective, 1 dead, 1 imbecile.
14	M.	1st	Idiot, apathetic	Paraplegic, deaf-mute.	Sickly babe; did not sit alone until three years old.	5	1 *brother*. 3 *sisters*, 1 dead.
15	F.	5th	Imbecile, first.	.....	History incomplete.	5	2 *brothers*. 2 *sisters*.
16	M.	5th	Idiot, excitable	Mute.	Infantile paralysis at one year old.	7	4 *brothers*, 1 of them dead. 2 *sisters*.
17	M.	4th	Imbecile, low.	.....	Child born asphyxiated. Convulsions at 6 days old.	9	3 *brothers*. 5 *sisters*, 1 of them defect., and 1 dead.
18	M.	3d	Imbecile, first.	.....	.....	3	2 *brothers*.
19	M.	2d	Insane.	Choreic, hydrocephalic.	Mother hysterical convulsions. Infancy delicate; scarlatina, etc. *Hutchinson's teeth*.	3	1 *brother*, dead, imbecile. 1 child, sex not given, dead.
20	F.	5th	Imbecile, middle.	Epileptic.	Sickly babe.	5	4 *brothers*, all dead, 2 were stillborn, and 1 was defect.
21	M.	3d	Imbecile, middle.	Paraplegic.	.....	7	6 *brothers*, 4 dead, 1 of whom defect.

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No. 1.

Age of parents at birth of the case.		Deceased parents.		Parental.	Grandparental.
F.	M.	F.	M.		
56	32	69	..	Father died of phthisis; mother weak-minded.	Maternal grandmother weak-minded.
26	21	..	..	Imbecility in some members of mother's family.	
38	36	..	+	Father inebriate; father and mother used tobacco excessively; mother died of "brain fever."	
36	32	..	..	Father inebriate; has suicidal mania during excesses.	Paternal grandfather hard drinker.
36	31	+	+	Mother died of phthisis. Father " "	Paternal grandfather and grandmother died of cancer; maternal grandparent consumptive.
24	26	..	32	Father consumptive, and heart disease; mother died of phthisis.	Idiocy in family of maternal grandfather.
35	19	..	..	Father inebriate and insane; from a family noted for its degradation.	Paternal side vagrant and paupers.
35	25	..	33	Mother died of phthisis. Two of her brothers insane; 13 brothers and sisters died of phthisis early in life.	
35	18	..	..	Deaf-muteism in father's family; epilepsy in mother's family; parents below average standard.	Paternal grandfather inebriate; maternal grandfather died at 35 of consumption.
30	25	..	..	Father weak-minded.	
40	32	..	..	Father weak-minded; mother hysterical. Deaf-muteism on father's side; goitre on mother's.	Paternal grandfather inebriate; maternal grandfather hard smoker.
29	26	..	..	Father dissipated, and "lives on tobacco;" brother and sister unsound; mother's sister epileptic and unsound.	Paternal grandfather inebriate; died of epilepsy. Paternal grandmother unsound mind. Maternal grandfather paralytic.
..	..	..	..	.....	History incomplete.
24	22	..	..	Father drinks to excess; mother's sister weak-minded.	History incomplete.
..	..	+	..	Father inebriate; found drowned.	History incomplete.
38	32	..	..	Father choreic; mother nervous, hysterical.	
31	29	..	..	Father's brother died of phthisis.	Maternal grandmother died at 32 of phthisis.
..	..	..	..	Father inebriate; mother prostitute.	History incomplete.
22	21	23	..	Father excessive tobacco user; died of phthisis; mother's sister has epileptic child.	Maternal grandfather inebriate. Maternal grandmother died young of phthisis.
31	27	..	..	Mother's family dying of consumption; one sister has migraine, one hysteria, and a third epilepsy.	Maternal grandfather epileptic and insane. Paternal grandmother died of cancer.
24	22	..	40	Mother an epileptic, dying of congestion of brain.	

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TABLE

No.	Sex.	Order of birth.	Grade.	Condition.	History of pregnancy, birth, and infancy.	No. of births.	Brothers and sisters.
22	M.	2d	Imbecile, low.	Hydrocephalic, semi-mute.	Ascribed to effects of scarlet fever when 9 years old.	6	1 *brother*, stillborn. 4 *sisters*.
23	M.	2d	Imbecile, middle.	.....	Convulsion in first dentition, and a "wild" child.	9	3 *brothers*, 1 defective. 5 *sisters*.
24	M.	8th	Imbecile, middle.	Epileptic, hydrocephalic.	Mother distressed during pregnancy because of insanity of father. A bright baby with a big head. Smallpox and convulsions when 1 year old.	9	3 *brothers*, 1 died with phthisis. 5 *sisters*.
25	F.	3d	Imbecile, middle.	Epileptic. microcephalic.	Condition attributed to nervous shock during early pregnancy	7	5 *brothers*, 8 dead, 1 of which defective 1 *sister*.
26	M.	2d	Imbecile, low.	Hemiplegic.	Strong hearty babe; raised on artificial feeding.	3	1 *brother*. 1 *sister*, died with epilepsy.
27	M.	1st	Insane.	.....	Is said to have been a bright and healthy infant.	6	1 *brother*, dead defective. 4 *sisters* all stillborn (2 of them twins).
28	M.	7th	Idiot, apathetic	Mute.	Congenital idiocy, ascribed to near relationship.(?)	10	8 *brothers*, 1 idiotic, 1 deaf mute, 1 epileptic, 3 dead, 2 defective. 1 *sister*, defective.
29	M.	1st	Imbecile, low.	Microcephalic.	History of three idiots in this one family is very imperfect.	14	3 *brothers*, 1 idiotic, 2 defective, dead. (1 half-sister from mother's first.)
30	M.	1st	Imbecile, first.	.....	Mother attempted abortion, and was unhappy during whole pregnancy. Child did not walk until three years old; spasms at teething.	2	..... 1 *sister*, epileptic.
31	M.	1st	Imbecile, middle.	.....	Slight spasms at teething; very slow to walk and talk.	3	..... 2 *sisters*.
32	M.	1st	Imbecile, first	Epileptic.	Child's condition attributed to abuse of mother during pregnancy, and instrumental delivery.	3	..... 2 *sisters*.
33	F.	7th	Idiot, apathetic	Mute, paraplegic, microcephalic.	Mother hard worked and nervous during gestation. Infantile paralysis and whooping-cough proximate causes.	8	3 *brothers*. 4 *sisters*, 1 dead.
34	M.	5th	Imbecile, first.	Microcephalic.	Infant sickly; did not walk until over two years of age.	10	7 *brothers*, twins dead, 2 others dead 1 *sister*. 1 child of uncertain sex died
35	M.	2d	Imbecile, middle.	Choreic, hemiplegic.	Very nervous babe, but condition attributed to a blow on head at 6 years of age.	3	1 *brother*, dead, defective. 1 *sister*, imbecile.
36	M.	1st	Imbecile, first.	Epileptic, microcephalic.	One of these congenital, microcephalic imbeciles.	8	5 *brothers*, 2 idiots, 3 stillborn. 2 *sisters*, dead defective.
37	M.	3d	Imbecile, middle.	Choreic.	Mother ascribes to shock during gestation; domestic grief.	5	2 *brothers*, 1 dead defective. 2 *sisters*.
38	F.	1st	Imbecile, first.	Hemiplegic.	Ascribed to ligation of carotid artery, for arrest of hemorrhage from abscess in neck, result of scarlet fever.	2	1 *brother*.
39	M.	4th	Imbecile, middle.	"Moral idiot."	Moth. suffered incredible hardships during gestation from an inebriate husband. Child did not walk until late, and both hands were paralyzed.	4	2 *brothers*, 1 dead. 1 *sister*, dead.
40	M.	1st	Imbecile, first.	Choreic, hemiplegic.	Premature birth because of fall. Babe very sickly; infantile paralysis.	4	2 *brothers*, 1 defective, one dead. 1 *sister*, defective.

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No. 1.—*Continued.*

Age of parents at birth of the case.		Deceased parents.		Parental.	Grandparental.
F.	M.	F.	M.		
33	23	..	47	Mother died of phthisis; father not strong minded.	
25	23	..	..	Father inebriate; mother's family and herself consumptive.	Maternal grandfather died of phthisis.
39	33	..	..	Father insane.	Paternal grandfather died of apoplexy. Both maternal grandparents of phthisis.
37	25	+	+	Mother died of consumption.	Maternal grandmother died of cancer.
26	20	..	..	Father inebriate, and now insane; mother weak-minded. Father's family die of consumption.	Paternal grandparents died of consumption.
23	17	38	..	Father intemperate; died of consumption; mother weak-minded and hysterical.	Maternal grandmother weak-minded.
30	26	..	41	Parents full cousins; mother died of acute phthisis.	Paternal grandfather died at 47 of heart disease. Paternal grandmother died at 56 of asthma. Maternal grandfather died at 52 of dropsy.
26	23	..	..	Consumption and intemperance in father's family.	
19	18	..	..	Father inebriate; mother's sister has spasms.	Paternal grandfather & maternal grandfather inebriate; former not of sound mind.
30	31	..	..	Mother scrofulous, and brothers and sisters are either dead or dying of phthisis.	Maternal grandfather died of consumption. Maternal grandmother epileptic and weak-minded; cancer on this side.
29	23	+	+	Mother died young of consumption; had hysteria. Mother's sister epileptic.	History incomplete.
33	31	..	37	.....	History shows no hereditary taint whatever, excepting maternal grandmother dying at 39 of phthisis.
27	30	45	..	Father died of "apoplexy."	Maternal grandparent died of paralysis.
34	35	..	..	Father thick speech and hearing; mother eccentric; neither of sound mind.	Paternal grandfather inebriate; phthisis on maternal side.
26	22	40	..	Father inebriate; died epileptic; mother not of full mind.	Phthisis on paternal side.
33	27	40	..	Father died of "dropsy;" mother's sister was epileptic and weak-minded.	Paternal grandfather died of phthisis. Maternal grandmother died of phthisis.
40	29	+	..	No hereditary taint known.	
40	35	41	36	Father violent inebriate; died intestinal hemorrhage; mother died of consumption.	Paternal grandfather inebriate.
22	21	32	31	Father died of acute phthisis; mother died of puerperal fever.	Paternal grandfather inebriate. Maternal grandfather and maternal grandmother died young of phthisis.

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TABLE

No.	Sex.	Order of birth.	Grade.	Condition.	History of pregnancy, birth, and infancy.	No. of births.	Brothers and sisters.
41	M.	1st	Imbecile, first.	Paraplegic.	Had convulsions at 4 months, and did not walk until 4 years old. One of three remarkable cases of pseudo-muscular hypertrophy.	7	4 *brothers*, 2 idiotic, 2 stillborn. 2 *sisters*.
42	M.	2d	Imbecile, low.	.....	Sickly, frail infant, giving early evidences of mental feebleness.	4	2 *brothers*, 1 dead consumptive. 1 *sister*, dead consumption.
43	M.	2d	Imbecile, first.	Epileptic.	Premature birth. Infantile convulsions and asphyxia.	7	3 brothers, 1 defective, 1 dead defective. 3 *sisters*, 1 dead imbecile, 1 dead.
44	F.	2d	Imbecile, low.	Epileptic.	Healthy infant; convulsions in second year from poisonous ingesta.	2	..... 1 *sister*.
45	M.	6th	Insane.	.....	.....	7	2 *brothers*. 4 *sisters*, 2 dead.
46	F.	2d	Idiot, excitable.	Mute, hemiplegic, choreic, epileptic, microcephalic.	Asphyxia at birth. Convulsions at 7 months.	4	2 *brothers*. 1 *sister*.
47	M.	1st	Imbecile, low.	Choreic, mute, hemiplegic.	Difficult, instrumental delivery; spasms and sickly childhood.	1	.....
48	F.	1st	Imbecile, low.	Choreic, mute, hemiplegic.	Mother abused, illy-fed, and over-worked during this gestation.	6	3 *brothers*, 1 dead. 2 *sisters*.
49	M.	3d	Idiot, apathetic.	Mute, microcephalic.	Born with mal-shaped head. Convulsions at 3 years; did not walk until 4.	8	2 *brothers*, 1 stillborn. 5 *sisters*.
50	M.	8th	Imbecile, middle.	Epileptic, paraplegic.	Strong babe until teething; Hutchinson teeth; and evidences of syphilitic taint.	9	4 *brothers*, 1 defective. 4 *sisters*, 1 defective.
51	M.	3d	Imbecile, middle.	Semi-mute.	Ascribed to cerebro-spinal meningitis when two years old.	4	1 *brother*, dead. 2 *sisters*, 1 defective.
52	M.	1st	Imbecile, middle.	.....	Uncommonly quiet, stupid babe, and as a little child abused by father.	6	2 *brothers*. 3 *sisters*, 1 dead.
53	F.	4th	Idiot, excitable.	Hydrocephalic.	Tedious labor. At three weeks child had severe pneumonic attack; scarlatina at 3, with destructive sequelæ.	4	1 *brother*, dead. 2 *sisters*, 1 dead.
54	M.	1st	Imbecile, low.	.....	Very difficult labor, preceded by a gestation of great mental disturbance. Cranial bones defective in ossification. In all the early pregnancies there was intense alienation towards the husband.	8	3 *brothers*, 1 idiotic, 1 stillborn. 4 *sisters*, 2 defective dead, 1 defective.
55	M.	1st	Imbecile, low.	Mute, paraplegic	.....	4	..... 3 *sisters*.
56	F.	5th	Imbecile, low.	Hydrocephalic, choreic.	Very delicate babe. Suspected to have "bowel consumption"	6	1 *brother*, stillborn. 4 *sisters*, 2 consumptives, 1 of whom dead, 2 dead.
57	M.	4th	.....	.....	Pregnancy accompanied by grave anxiety. Difficult labor; feeble infancy.	6	2 *brothers*, 1 dead. 3 *sisters*, 1 dead.
58	F.	1st	Imbecile, first.	Hydrocephalic.	Illegitimate child of an imbecile mother.	1	.....
59	M.	2d	Idiot, apathetic.	Microcephalic, choreic, mute.	Very feeble infancy; brain fever at 9 months.	3	1 *brother*. 1 *sister*.
60	F.	4th	Imbecile, middle.	Epileptic.	From 2d to 4th year arrest of growth, and extremely delicate health.	7	3 *brothers*, 1 of them a miscarriage. 3 *sisters*, 2 dead; 2 of them twins.
61	F.	2d	Imbecile, low.	Mute.	Very delicate infancy, and backward development.	4	2 *brothers*, 1 defective. 1 *sister*.

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No. 1.—*Continued.*

Age of parents at birth of the case.		Deceased parents.		Parental.	Grandparental.
F.	M.	F.	M.		
21	18	+	33	Both parents of extremely nervous temperament; mother deaf and scrofulous, not of strong mind, and died of cancer; father died of consumption.	
26	22	+	..	Parents first cousins, with a history of rheumatism and consumption in entire family.	
22	22	33	..	Father epileptic; brother half witted; mother eccentric, and epilepsy in her family.	Paternal grandfather inebriate. Paternal grandmother opium eater; neither of strong mind. Maternal grandparents died of consumption.
25	25	..	..	Father moderate drinker; consumptive diathesis; mother hysterical.	A great-aunt of father epileptic, and No. 44 is attributed to atavism, the paternal grandparents being first cousins.
58	38	70	..	Mother and father inebriate; mother excitable and weak-minded.	Inebriety on paternal, and insanity on maternal sides.
28	26	32	..	Consumption on maternal side.	
35	40	+	40	Both parents died of phthisis.	
21	21	..	..	Father inebriate.	"Heart disease" in both families.
29	25	40	..	Father scrofulous; died of typhoid dysentery.	Maternal grandparents first cousins, with scrofula and insanity in one branch.
42	41	..	..	Father inebriate; mother deaf, and of feeble understanding.	Paternal grandfather epileptic.
28	23	43	36	Father inebriate; died of consumption; mother weak-minded; died of consumption.	No information.
24	17	..	..	Father vicious and quarrelsome; tobacco in excess; mother very delicate.	No information.
29	27	..	..	Father consumptive, and very nervous.	Paternal grandfather had "tremendous sprees" in liquor. Paternal grandmother scrofulous.
27	22	..	..	Domestic misery, and alcoholism on both sides. Perhaps tendency to insanity.	Grandparents on both sides long-lived and healthy.
21	20	38	..	Father died of spinal disease; mother highly nervous, and very eccentric.	
32	28	..	31	Father thick speech and dull understanding; mother died of phthisis; sister had an idiotic child.	Insanity on maternal grandmother's side.
34	30	39	..	Father paralytic; died of erysipelas.	Paternal grandfather erysipelas, and entire family died of same.
..	..	..	..	Father inebriate; mother imbecile.	Paternal grandmother inebriate.
38	30	46	..	Father inebriate; died of brain disease; mother very deaf, below average intellect, and consumptive.	Grandparent long-lived.
28	27	..	40	Feeble-mindedness in father's family.	Father's ancestors unknown; mother's very long-lived.
..	..	..	36	Father inebriate; mother weak-minded and inebriate; died of phthisis.	Maternal grandfather intemperate. Maternal grandmother insane, and of consumptive family

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TABLE

No.	Sex.	Order of birth.	Grade.	Condition.	History of pregnancy, birth, and infancy.	No. of births.	Brothers and sisters.
62	M.	2d	Imbecile, low.	.....	A very strong infant, but developed mother's neurosis very early.	6	3 miscarriages, 1 child dead, 1 brother defective.
63	M.	8th	Idiot, excitable.	Microcephalic, mute.	Mother under painful shock in early pregnancy. Infant's osseous system very defective; could not walk until 5 years.	12	6 *brothers*, 1 idiotic, 2 died of phthisis. 5 *sisters*, 2 died of phthisis, 1 died in infancy.
64	M.	1st	Imbecile, low.	Hemiplegic.	Convulsions in infancy.	3	2 *brothers*.
65	M.	3d	Imbecile, middle.	Choreic.	Did not walk until 5 years old.	3	1 *brother*. 1 *sister*.
66	F.	3d	Imbecile, low.	Epileptic, hemiplegic, microcephalic.	Was a hearty babe; attributed to fall from carriage when 2 years old.	3	1 *brother*, consumptive. 1 *sister*.
67	M.	2d	Imbecile, middle.	.....	Pregnancy associated with great debility. Difficult instrumental delivery, and enfeebled infancy.	4	2 *brothers*, 1 imbecile died. 1 *sister*.
68	F.	6th	Imbecile, first.	.....	Infant sickly for two years.	8	2 *brothers*. 5 *sisters*.
69	M	4th	Insane.	Choreic.	No history given.	5	2 *brothers*, 1 insane, 1 defective. 2 *sisters*, 1 insane.
70	M.	7th	Idiot, apathetic.	Mute, microcephalic.	Mother during pregnancy shocked by attention on child dying in convulsions. Infancy very sickly.	11	4 *brothers*, 1 died with epilepsy. 6 *sisters*, 1 stillborn.
71	F.	1st	Imbecile, middle.	.....	Gestation accompanied with intense anxiety and sorrow.	2	1 *brother*, dead.
72	M.	1st	Imbecile, first.	.....	Domestic anxiety during pregnancy. Difficult labor, and puny infancy. All the births of this wedlock are premature	3	..... 2 *sisters*, both dead, 1 with phthisis.
73	M.	3d	Idiot, excitable.	Mute, microcephalic, hemiplegic.	Sickly infancy; partially blind.	3	Oldest *brother* died of consumption, next brother consumptive.
74	M.	3d	Imbecile, low.	Hemiplegic.	Illegitimate. Born of a prostitute, and evidence of congenital syphilis.	3	First two *brothers* defective.
75	M.	1st	Idiot, apathetic.	Mute, microcephalic.	Very feeble infancy.	6	2 *brothers*, 1 imbecile, 3 *sisters*, 1 dead.
76	F.	5th	Idiot, excitable.	Epileptic, hydrocephalic.	Infancy and childhood marked with signs of syphilitic taint. A "moral idiot."	7	6 dead, 4 of them miscarriages.
77	M.	2d	Imbecile, middle.	Mute, choreic.	Choreic infant at 3 months.	8	5 dead, 2 of them miscarriages. 2 *sisters* living.
78	M.	3d	Imbecile, low.	Microcephalic.	Attributed by mother to fright during gestation. Infant's body covered at birth with a "scrofulous eruption."	4	2 dead. 1 *sister* consumptive.
79	F.	6th	Imbecile, middle.	Microcephalic.	Very delicate baby.	7	3 *brothers*, 1 of them died of epilepsy. 3 *sisters*, 1 defective, and 1 died of epilepsy.
80	M.	9th	Imbecile, first.	Epileptic.	Convulsions three days after birth, but otherwise strong child.	11	8 *brothers*, 4 of them died of phthisis, 1 is idiotic, and 1 died in infancy. 2 *sisters*, 1 died of phthisis.

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No. 1.—*Continued.*

Age of parents at birth of the case.		Deceased parents.		Parental.	Grandparental.
F.	M.	F.	M.		
27	..	..	..	Mother epileptic; her sister a deaf mute; her family is consumptive.	
43	31	..	44	Mother died of cancer of womb; consumption on paternal side.	Paternal grandfather died of consumption. Maternal grandmother died of heart disease.
42	25	..	..	Father dissipated, syphilitic; mother is feeble minded.	
33	31	40	..	Father became dissipated and syphilitic; died of general paralysis; mother consumptive, etc.	Paternal grandfather died at 60 erysipelas. Paternal grandmother died of tubertulosis. Maternal grandfather died of heart disease at 65. Maternal grandmother died at 60, fever.
..	22	+	+	Mother was a twin sister of mother of No. 19.	No. 66 is a case of hereditary imbecility traceable through maternal ancestry. Mother consumptive epileptic; 7 sisters and 3 brothers died of consump. Maternal grandfather inebriate
25	24	..	..	Father weak-minded; excessive in his use of tobacco.	Paternal grandfather always "hard of hearing."
36	32	47	..	Father died of consumption; intemperate.	
50	40	+	..	Parents very eccentric, but highly cultivated.	Insanity in both families.
38	35	..	..	No history of constitutional taint given of either family.	
30	20	31	27	Mother died of consumption.	Maternal grandfather died of consumption.
23	18	..	..	Father insane temperament; abandoned his family.	Grandparents long-lived and healthy.
45	25	45	..	Father died of phthisis; mother's brother is feeble minded; mother is nervous and consumptive.	Paternal grandfather and grandmother died of phthisis.
..	32	..	+	Mother an abandoned woman; her first children by a weak-minded husband are both imbecile; mother died of syphilis.	
22	20	..	..	Father intemperate.	Paternal grandfather died of phthisis. Both maternal grandparents died of phthisis.
..	..	30	..	Father insane, epileptic (syphilitic); mother hysteric, weak-minded. Second marriage is to a paralytic.	Paternal side very healthy, long-lived. Maternal grandmother died at 30, phthisis.
..	19	45	..	Father died of cancer of stomach; mother of a large family noted for its sterility.	Cancer in paternal line. Maternal grandfather died at 52, phthisis.
22	34	35	..	Father inebriate, died of phthisis and excess. Mother by first husband had 3 children, all dying in infancy.	Paternal line very vigorous.
..	..	49	41	Father died of consumption; mother epileptic, dipsomaniac.	Paternal grandmother died of phthisis. Scrofula in maternal family.
40	37	57	..	Both parents subject to migraine, and below ordinary standard of intellect; father died of phthisis.	Paternal grandfather died of phthisis.

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TABLE

No.	Sex.	Order of birth.	Grade.	Condition.	History of pregnancy, birth, and infancy.	No. of births.	Brothers and sisters.
81	M.	4th	Imbecile, middle.	Choreic.	Attributed to laudanum given in infancy.	7	4 dead.
82	M.	3d	Imbecile, first.	Hydrocephalic.	Attribut'd to accoucheur's rough handling. Unable to hold his head up until a year old.	4	2 *brothers*. 1 *sister*.
83	F.	7th	Imbecile, middle.	Choreic, hydrocephalic.	.....	10	6 *brothers*, 4 of them dead 3 *sisters*.
84	M.	2d	Imbecile, middle.	Choreic, dwarf.	Ascribed to mental disquietude during gestation. Infant had marasmus until 2 years old.	4	2 *brothers*. 1 *sister*, dead.
85	F.	5th	Idiot, excitable.	Microcephalic, choreic.	Conceived when father was suffering from temporary amaurosis. Premature birth of infant weighing 1¼ lbs.	8	4 *brothers*, 1 consumptive. 3 *sisters*, 1 dead.
86	M.	1st	Imbecile, middle.	Microcephalic.	Protracted instrumental delivery.	2	..... 1 *sister*, consumptive.
87	M.	4th	Imbecile, first.	.....	Mother despondent from poverty and anxiety during her whole fecund life.	7	2 *brothers*, defective 3 *sisters*, 2 of wh'm were imbeciles, 1 (twin to the case) died, 1 defective.
88	M.	9th	Imbecile, low.	Cretin, choreic.	Weakly, ill-shaped infant.	11	2 *brothers*, 1 dead. 8 *sisters*, 2 dead, 1 defective.
89	M.	1st	Imbecile, middle.	.....	Illegitimate child of feeble minded parentage.	1	.....
90	F.	1st	Imbecile, middle.	Hydrocephalic, choreic.	Unfortunate offspring of a wretched union.	1	Mother's 2d marr'ge; has 1 miscarriage; 1 *brother* consumptive.
91	M.	1st	Imbecile, low.	Epileptic.	Strong infant until 18 months, when he had convulsions, which continued until they became epileptic.	1	.....
92	M.	1st	Imbecile, low.	Microcephalic, choreic, semi-mute, hemiplegic.	Condition referred to injury at birth, which was difficult.	4	1 *brother*. 2 *sisters*, 1 defective.
93	M.	2d	Imbecile, middle.	.....	Mother ill from a fright, and sick during most of gestation. Infant weighed but 3 lbs., puny and sickly.	4	1 *brother*. 2 *sisters*, 1 defective.
94	F.	3d	Imbecile, middle.	.....	Moth. over-worked and abused. Infant had supernumerary fingers and toes, as had *all* the other children. None talk plainly.	12	3 miscarriages, 1 of them twins; 1 defective sister, 1 defective, and 1 imbecile brother.
95	M.	2d	Imbecile, first.	Epileptic.	Ascribed to a fall in his ninth year. No traumatism visible.	2	1 *sister*.
96	F.	5th	Imbecile, low.	Choreic, microcephalic.	Father constantly in liquor, made mother more than usually anxious. Spasms from infancy till 3 years old.	9	5 *brothers*, 2 defective, 2 died of phthisis. 3 *sisters*, 2 of whom defective.
97	F.	3d	Idiot, apathetic.	Cretin, choreic, microcephalic.	Said to be occasioned by intensity of mother's mind fixed on Barnum's "What is it?" visiting it during pregnancy.	4	3 *brothers*, 1 died of consumption.
98	F.	2d	Idiot, excitable.	Epileptic, mute.	Infant had spasms at two months old.	4	2 *brothers*. 1 *sister*, dead.
99	M.	3d	Imbecile, middle.	Hydrocephalic, choreic.	.....	7	2 *brothers*, 1 imbecile, 1 imbecile dead. 4 *sisters*, 1 dead
100	F.	3d	Imbecile, middle.	Epileptic, hydrocephalic.	Mother greatly prostrated during pregnancy, and exposed to hot weather.	9	5 *brothers*, 1 of twins dead, 1 dead. 3 *sisters*, 1 of twins dead.

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No. 1.—*Continued.*

Age of parents at birth of the case.		Deceased parents.		Parental.	Grandparental.
F.	M.	F.	M.		
30	28	..	..	Mother subject to attacks of migraine, and very nervous; father scrofulous.	Maternal grandfather inebriate. Maternal grandmother died of paralysis.
30	27	..	29	Father nervous, unstable man: mother died of rheumatism.	
..	..	48	45	Father violent man, died of paralysis; mother died of erysipelas.	
28	25	..	..	Father unstable, very nervous; small of stature.	Grandparents healthy and long-lived.
42	33	..	+	Mother died of paralysis; all her brothers are drunkards. Parent subject to severe neuralgic blindness.	Highly respectable and long-lived families.
41	29	39	39	Mother small, delicate, neuralgic woman, always sick; died of phthisis. On father's side blindness, deafness, and paralysis.	Paternal grandmother died at 40 of phthisis.
30	35	39	..	Father visionary monomaniac, epileptic and inebriate, using opium, and dying of phthisis; mother very capable woman.	Hysteria on paternal side; erysipelas and consumption on mother's.
40	38	..	+	Parents very vigorous and intelligent.	Paternal grandfather died of phthisis at 42. Maternal grandfather suicide at 30; insanity in this line.
28	19	..	..	Father inebriate and weak minded; mother weak minded.	No history.
33	20	..	..	Father a man of ability and education, but of violence of temper bordering on insanity.	No history.
24	20	28	..	Mother simple-minded and consumptive; father died of consumption.	Paternal grandparent died of phthisis, and 5 children consumption. Maternal grandfath. insane and intemperate.
33	31	49	..	Father choreic in childhood; died of heart disease.	Paternal grandmother died of congestion of brain; consumption in both lines: paternal grandparents second cousins.
31	25	52	..	Parents second cousins. Father died of phthisis; mother suffers from migraine.	Paternal grandfather died of heart disease. Maternal grandmother died of phthisis.
34	22	42	..	Father epileptic and inebriate; mother healthy, intelligent woman.	Paternal grandfather epileptic. Paternal grandmother "died in fits."
36	30	..	44	Mother died of phthisis; otherwise families are long-lived and healthy.	
36	27	..	..	Father bestial character; his brother insane. Mother became insane, is now in hospital; her brother and uncle are insane.	Maternal grandmother died of paralysis.
37	33	..	..	Parents not physically strong; father consumptive.	Erysipelas in grandparental families.
34	23	..	34	Father small stature, deaf, and poor understanding; mother died of scarlatina.	Parental grandfather died of hæmoptysis. Others live to great age.
32	28	..	..	Parents second cousins. Three of mother's sisters have feeble-minded children.	Both grandfathers very intemperate.
39	38	..	..	Both parents have been drinkers, but no facts bearing on case.	Lived to great age; very healthy.

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TABLE NO. 2.—*Showing order of Birth and condition of Children in the* 100 *Families comprised in the investigation.*

	Imbecile.	Defective.	Normal.	Miscarriages.	Total.
First pregnancy	36	16	45	3	100
Second "	22	17	51	5	95
Third "	21	16	50	1	88
Fourth "	8	12	49	6	75
Fifth "	13	5	31	6	55
Sixth "	8	5	30	5	48
Seventh "	5	2	29	4	40
Eighth "	5	3	16	2	26
Ninth "	3	4	11	0	18
Tenth "	0	2	6	2	10
Eleventh "	1	0	4	1	6
Twelfth "	0	0	2	2	4
Thirteenth "	0	0	0	1	1
Total	122	82	324	38	566

REMARK.—The children credited to the column "Normal," are so represented by the informants, and it is probable that this judgment is in some cases biased.

TABLE NO. 3.—*Showing Sex of the* 566 *Children.*

	Males.	Females.	Total.
Imbecile	86	36	122
Defective	49	33	82
Normal	161	163	324
Miscarriages,[1] etc.	13	7	20
Total	309	239	548

[1] In 18 cases the sex of miscarriages and still-births is not stated, and hence these are not included in this table.

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EXPLANATORY.

This table is intended to show the *accessory* conditions .d tendencies of a certain given *group* of defective in- viduals represented in these tables, and of the stock om which they descend.

If, for instance, the group "*Low Grade Imbeciles*" be e one given, we find the total at the intersection of e vertical and horizontal columns with the same head- gs, to wit, **25.**

Following the vertical or horizontal columns to both les, we find that of 25 Imbeciles (Low Grade), 1 *is an phan*, 12 *are half-orphans*, and 12 *not orphans.*

We further find that 5 are *Epileptics* *also.*

6	"	*Paretic*	"
11	"	*Choreic*	"
8	"	*Microcephalic*	"
4	"	*Hydrocephalic*	"
5	"	*Mute*	"

Pushing forward in the column we find that in the nilies of these 25 children, including *parental and ndparental generations*, there was

Consumption	in	15	families.
Paralysis	"	1	family.
Epilepsy	"	3	families.
Insanity	"	4	"
Weak-mindedness	"	6	"
Nervous Disorders	"	9	"
Intemperance	"	11	"
Syphilis	"	1	family.
Consanguinity	"	2	families.

Within the columns of the table under "Stock" we able to trace variations in the hereditary tendencies, example—

The table gives us 38 as the number of cases in which emperance is given as an accessory or immediate sation. By following the column we find the con- rent causes, the conditions and the orphanage of the up of defective children being the progeny of these families. It is clear that no individual case can be gly traced out in this table.

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REPORT OF AN OPERATION FOR THE REMOVAL OF AN UNUSUALLY LARGE SUBMUCOUS FIBROID OF THE UTERUS.

By S. T. DAVIS, M.D.,
OF LANCASTER, PA.

Fibroids of the uterus have been divided by pathologists into the Subserous, Interstitial or Intramural, Subperitoneal, and Submucous.

It is to the latter or submucous fibroid that I desire more particularly to call the attention of the Society by citing a case from my case-book. I was called March 8, 1878, to see Mrs. P; married two years; menstruated at the age of twelve; has always been regular; never pregnant; states that she has not been more than forty-eight hours without a sanguineous discharge from the vagina since the 18th day of December, 1877, or nearly three months. Has during that time been under the treatment of a homœopath. She is almost bloodless, is much emaciated, and so weak that she is unable to assume the sitting posture without feeling faint.

Physical Examination.—Pulse weak and thready; pelvis filled with the enlarged uterus; os uteri small and firm; neck one and one-fourth inch in length, resembling a nipple; abdomen enlarged to about the size of pregnancy at the sixth month, symmetrical in shape, with dulness over the whole enlargement; sound passes with difficulty one inch and a half, and comes in contact with a semi-elastic substance. Has suffered very little pain during her illness.

Diagnosis, submucous fibroid.

Treatment.—Gave astringents, and enjoined rest in the recumbent position, with concentrated nutritive diet.

March 13. No improvement. Determined to dilate the os, and, if correct in diagnosis, to attempt the removal of the tumor. Accordingly I introduced a small laminaria tent, which in twenty-four hours I removed, and followed it with a small sponge tent. This treatment was kept up, increasing the size of the tents from time to time, until the 24th of March, when the os was dilated sufficiently to admit the

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index finger. Owing to the great prostration of the patient, the process of dilatation was necessarily slow. I was now for the first time enabled to make a satisfactory examination, and determine without doubt the attachments of the tumor.

I found that the sound glided up the left side, and, upon further manipulation, revealed the fact that about two-thirds of the circumference of the mass was attached to the right side of the uterus, the attachment extending from the fundus to the os internum. After satisfying myself as to the location and attachments, with a stiff steel sound I perforated the capsule, even passing the instrument into the substance of the growth in a dozen or more places, from the os internum to the fundus, and ordered fluid extract of ergot in small and oft-repeated doses, with a view to bring on contraction of the uterine walls.

25*th*. Patient complained of pains during the latter part of the night. Uterus contracted firmly; grumous discharge from the cervix and becoming offensive. With a Davidson's syringe I injected tepid carbolized water into the cavity of the uterus. The same was repeated in the evening.

26*th*. 9.15 A. M., uterus well contracted; slept none; profuse discharge during the night containing membranous shreds; a mass of the tumor engaged in the os internum which I removed with polypus forceps. Washed uterus out with carbolized water and discontinued the ergot, as it was evident that owing to the firm attachment at the internal os sufficient dilatation could not take place to expect the expulsion of the whole mass, as is sometimes the case; and, although the patient had lost no blood of any account since the 13th inst., it was readily perceptible that she was becoming gradually weaker. 5 P. M., removed about two ounces of the tumor which was engaged in the os; discharge profuse and very offensive. Intrauterine injection repeated. Passed the sound into the tumor in all directions. The size of the uterus and contents perceptibly smaller; ordered quiniæ sulph. gr. ij every four hours, with 20 drops dialyzed iron. Beef-tea as much as could be borne, and twenty drops of McMunn's elixir of opium at bedtime.

27*th*. 9 A. M., suffered from uterine contractions all night. Removed a large mass of the tumor with the forceps. Treatment continued. 5 P. M., there has been a profuse, shreddy discharge during the day. Removed another portion which was engaged in the neck.

28*th*. Visited twice to-day, and both times removed portions of the disintegrated mass.

29*th*. Rested well; the discharge has been free, and the dilated os is filled with portions of the tumor.

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April 8. Nothing of special interest has occurred in the history of the case since March 29th, except that the fragments of the tumor found engaged in the os have been smaller from day to day, and the discharge less offensive. Since March 30th I have used tr. iodini instead of acid. carbolic. as an intrauterine injection. Uterus still diminishing in size. Appetite good; sleeps well without anodyne, and is able to sit up for a few minutes at a time on an easy chair.

10*th*. Continues to do well. Discharge sero-purulent, though not offensive; discontinued the intrauterine injections. None of the tumor was passed since March 29. Applied solid cone of argenti nitras to the profuse granulations of cervix. Pulse 82.

13*th*. Last night what proved to be the last portion of the detached tumor passed.

19*th*. Patient gaining strength rapidly. Sits up most of the day. Sound passes inward and upward to the extent of four inches, at which point the fundus is reached. Quinine and iron to be taken three times a day.

May 6. Patient has regained her usual health and strength, and menstruated regularly to-day. Sound passes three inches. Discontinue quinine and iron.

June 17. Menstruated on the 5th. Uterus almost normal in size, though with undue thickening of the walls of the right side. No discharge from the vagina whatever; sound passes two and three-fourth inches. Patient discharged with instructions to call every four or six weeks, and report condition of her health. During the latter part of April, 1879, patient called, suffering from morning sickness, and stated that she had not menstruated for two months. Pregnancy progressed without any unusual occurrence until Nov. 5th. I was called at 6.15 A. M.; she had been having labor-pains about one hour, coming on about every five minutes. Examination per vaginam revealed the uterus low down in the pelvis. Os uteri as thin as paper, and dilated to about the size of half a dollar silver coin. Upon examination of the abdomen, especially during a paroxysm of pain, two tumors could without difficulty be mapped out; one containing the child occupying the left side, and what proved to be an intramural fibroid, on the right side. I left the patient and called at 8.45. Labor progressing nicely. In twenty minutes the head had passed through the os, and in twenty minutes more a seven-pound female child was born. The uterus contracted well, and after some little difficulty the placenta which was adherent was removed. Here an excellent opportunity presented itself for making a bi-manual examination, which was not lost sight of. With

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the right hand in the uterus and the left on the abdomen, I was enabled to locate the womb occupying the left side extending above the crest of the ilium. The right side was filled with the tumor, which was twice as large as the uterus, oval in shape, and had that semi-elastic feel between the hands characteristic of tumors of this class. Circumference of abdomen around umbilicus thirty-four inches.

A careful examination of the right inner uterine wall revealed very distinctly the site of the submucous fibroid, as the cicatrix was felt and recognized without a doubt. The patient did well, had a good getting up, and lochial discharge normal in quantity and quality. The child became weak and puny, and died on the twenty-fourth day after its birth, of asthenia.

May 11, 1880. Patient has been in the enjoyment of good health since the birth of her child. Has menstruated regularly, lasting on an average of about five days. Axis of uterus nearly normal, inclining somewhat to the left side. Sound passes two and a half inches. Attached to the right side of the uterus is a large sessile fibroid, of an oblong shape and about four inches by six in diameter. The outlines of this tumor can readily be seen on inspection of the abdomen. It gives her no inconvenience whatever as yet, and seems to be smaller though more compact than at the birth of her child.

Several points of interest present themselves in reviewing this case. The operation was entirely successful in removing the submucous portion of the tumor and effectually sealing up those avenues through which her life was rapidly ebbing. It was, without doubt, originally an intramural fibroid, and only for a time submucous out of necessity. In its original development there was less resistance from the yielding mucous membrane lining the cavity of the organ than from the solid compact structure of the walls of the virgin uterus, hence it can be readily seen how it grew and filled the same to the extent detailed in the beginning of this paper.

After the removal of the intra-uterine or submucous portion, a few cells, shut out by the firm cicatrix, and in a short time by pregnancy, which offered still more resistance to its development toward the uterine cavity, formed the nucleus for the present growth, which is now out of reach of surgical skill, and may give the patient no particular trouble for many years to come.

LANCASTER, May 14, 1880.

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THE NORMAL AXIS OF THE SOLE OF THE HUMAN FOOT.

By BENJAMIN LEE, M.D., Ph.D., F.A.A.M.,
OF PHILADELPHIA.

It is a universal popular belief that the human foot is straight, and that in its straightness lies its beauty. Nor is this impression confined to laymen. If I should put the direct question to this Society, composed as it is of men learned in anatomy, "Is the axis of the sole of the foot straight or crooked?" the probability is that a very large majority would unhesitatingly reply, "straight." Nothing, however, can be further from the truth. The axis of the natural, undeformed foot is a curved line. By the sole of the foot I understand that portion of the naked foot which comes in contact with the ground in walking, and for which it is necessary to provide protection from such contact in the shape of the sole of the shoe. By the axis of the sole I understand a line starting at the middle of the posterior edge of the heel or *os calcis*, and running forward in the median line of the sole until it terminates at the middle of the toes, which point lies usually between the second and third toes. Now this line will be found to be straight for little more than the length of the *os calcis;* it then begins to diverge toward the mesial line of the body or inner side of the foot. If continued as a straight line, instead of striking the middle of the foot anteriorly, it will, in the great majority of cases, strike the middle of the little toe. A glance at these diagrams, which I have had made of heroic size in order that they may be readily seen and understood from all parts of the room, will convey the idea in less time than words could. The one, the straight sole (Plate I.), is the ideal of the shoemaker; the other, the curved sole (Plate II.), is the ideal of the anatomist, of the artist, and, I say it with all reverence, of the Creator.

To Prof. Hermann Meyer, of the University of Zurich, is Europe, and indeed the civilized world, indebted for its emancipation, not yet fully realized, from the galling tyranny of the French bootmaker and the French dancing master, a tyranny by the side of

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which, if measured by the misery it has caused, that of Czar and Emperor sinks into comparative insignificance. In a modest little pamphlet, entitled "WHY THE SHOE PINCHES," he discussed in the fullest and most scientific manner the anatomy of the foot, and showed conclusively that the principle upon which shoes were universally constructed was radically wrong, and could result only in injury to that most valuable member. The two points to which he especially took exception were: First, The idea that the entire sole is straight; and Second, The idea that the inner side of the foot from the metatarso-phalangeal joint of the great toe to its extremity is curved. The second error is almost as serious as the first. In point of fact, the great toe, in a natural, undeformed foot is straight. The aim of the shoemaker has been to make each foot symmetrical in itself, while the foot, being a double organ, follows the law of all double organs, and is symmetrical only with its fellow. If we could succeed in making both feet exactly alike we should at once lose the beauty which comes from the comparison of the two objects symmetrically unlike, one of the highest sources of gratification which the sense of sight is capable of appreciating. In carrying out this aim he has made the shoe not simply what it should be, a covering for and protection to the foot, but an *orthopædic instrument*, the object of which is to straighten out its natural curve.

A glance at these diagrams, as I place one over the other, will show at what points the pressure is applied in order to produce this result. (Plate III.) They are observed to be the inner side of the heel, the outer side of the middle of the foot, and the inner side of the great toe. It will also be noticed that at the same time that strong pressure is brought to bear upon the first or metatarsal joint of the great toe, its distal extremity is forced toward the middle line of the foot; the result of this necessarily is to convert the inner surface of the articular portion of the metatarsal bone into a fulcrum, against which the first phalanx is forced outwards. The articular surface of the phalanx is thus uncovered, and, instead of remaining in contact with the opposite articulating surface of the metatarsal bone, it is in contact with the shoe, protected only by integument. A provisional bursa is sometimes established, itself often the seat of inflammation; but this does not prevent the sensitive joint surface and the synovial membrane from ultimately receiving injurious pressure, which results in the hideous and painful deformity known as a *bunion*. At the other end of the toe the continued pressure against the matrix of the nail induces a suppurative inflammation of low grade, with fungous granulations, to which the name of *in-growing toe-nail* is given; while the other toes, crowded

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together and overlapping (Plate IV.), are not long in becoming knobbed with corns and callosities. By dint of beginning in early infancy or childhood, as Chinese mothers do, the shoemaker sometimes completely succeeds in his object of straightening out the curve of the foot. The drawing which I now show you (Plate V.) is a tracing of an actual foot. As you observe, its axis is a straight line from the middle of the heel to the middle of the toes; but you also notice at what a fearful cost of years of suffering, as witnessed by this enormous bunion, the result has been obtained. It may well be doubted whether, to use the expressive French phrase, the "game has been worth the candle."

The process of deforming the foot of an American child is usually about as follows: As soon as the victim is able to walk, a pair of straight-soled shoes, rather narrower than the feet, is provided for it. In the course of a few weeks the shoes, being worn the one habitually on the right and the other on the left foot, begin to take the shape of the respective feet. This is no sooner observed by the careful mother than she exclaims: "Why, Jonny! you're wearing your new shoes all out of shape; you must change, and wear them on the other feet." And if Jonny forgets, finding the change by no means conducive to comfort, he is whipped to aid his memory. It will readily be understood how well adapted these shoes, now conformed to the natural curves of the feet, are to straighten out the curves of the opposite feet. By this simple means, repeated as often as the feet begin to assert their independence, and persistently carried out, it often happens that by the time a child is six years old its great toe will be seriously deflected from the recti-linear position, which it ought to occupy, and the curve of the sole partially straightened. Fortunately, lasts and ready-made shoes can now be obtained which approximate quite closely to the natural shape of the foot; and not only can the foot of the child be preserved perfect as it grows up by using such lasts and shoes, but a foot which is already somewhat distorted may be coaxed back more or less nearly to its original shape. I can speak experimentally on this point, which must be my excuse for the apparent egotism of introducing a tracing of my own foot. When I first began to wear shoes made with regard to this principle, more than twenty years ago, my feet were about as much out of shape as the average adult foot. I had numerous corns and a fair promise of bunions and of an in-growing toe-nail on the left foot. And here let me advert to a fact not generally known, viz., that the left foot is usually the longest. In ignorance of this, the right foot is usually given to the shoemaker for measurement; hence the left shoe is too small, and the left foot is the one which is

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most apt to become crippled. You will notice the marked curve of the axis of this sole (Plate VI.), and the straightness of the inner edge of the great toe, which of course means that the toe itself is straight; and you will perhaps be ready to exclaim, with the Philadelphia shoemaker to whom I showed my lasts on coming to reside in that city: "Why, doctor! what a crooked foot you must have!" Although he very reluctantly makes my shoes on them, he will never believe to this day that my foot is not deformed.

Here is another tracing (Plate VII.) of a tolerably natural foot which I happened to obtain in the following way: A clerical patient coming into my office not long since, observed the tracing of my own foot, which I have just shown you, lying on my desk. Picking it up, he regarded it mournfully for a moment, heaved a deep sigh, and said: "Ah! doctor, that is just the deformity of my little boy's foot. I must bring him to see you." While expressing my sympathy with his little son's misfortune, I assured him he was in error in supposing that the drawing represented a deformed foot, as it was that of my own, which was tolerably natural. Finding it impossible to overcome his incredulity on this point, I glanced down at his own feet, and noticed that he wore a good, generous, broad-soled shoe, which could not have produced much distortion; and said confidently, "I venture to say that your own foot is nearly as crooked as mine." He at once took off his shoe and stocking in order to disprove the truth of my assertion, and this is the result. You observe here again the curved axis, the straight line from the middle of the heel striking the little toe, and the straight great toe.

We find, as a rule, the feet of women much less seriously deformed than those of men, especially in the higher walks of life, from the fact that their shoes are made of so much softer materials, and that they lead, on the whole, more sedentary lives. And when a lady has been confined to bed for a long period of time by chronic illness, her foot often acquires an almost perfect shape. One such foot I have seen, white as alabaster, exquisite in its outlines and curves as a sculptor's dream. Its proprietor had been for many years confined to her room, most of the time to her bed, but, as is often the case in such maladies, had lost nothing of her youthful plumpness and beauty. This drawing (Plate VIII.) belongs to that category, the patient having been a confirmed invalid for two years.

The ready made shoe, to which I have referred as conforming to the principle I have announced, is known as the "Waukenphast," first introduced under that name in England, but now manufactured quite extensively in New England. It may be obtained of Wanamaker in Philadelphia, and is made of so many different proportions as

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well as numbers, that almost any foot can be fitted by simply sending the measurements. There are also a number of shoemakers in Philadelphia who have provided themselves with full sets of lasts of this pattern, and make the shoe to order. Contrast the comfortable, easy, natural position of toes in such a shoe (Plate IX.) with that of the cramped, distorted, overlapping toes in Plate IV., and nothing further will be needed in the way of argument. I feel confident that in bringing this humble subject to your notice, I have deserved and shall receive the gratitude of every member who has known what it is to suffer the torture of an improperly made shoe and its consequences. I feel not less confident that there is a good time coming, when the shoe will universally be conformed to the natural shape of the foot, and when, as a necessary result, corns, bunions, *et id omne genus*, will cease from off the face of the earth.

1503 SPRUCE STREET, PHILADELPHIA, May 17, 1880.

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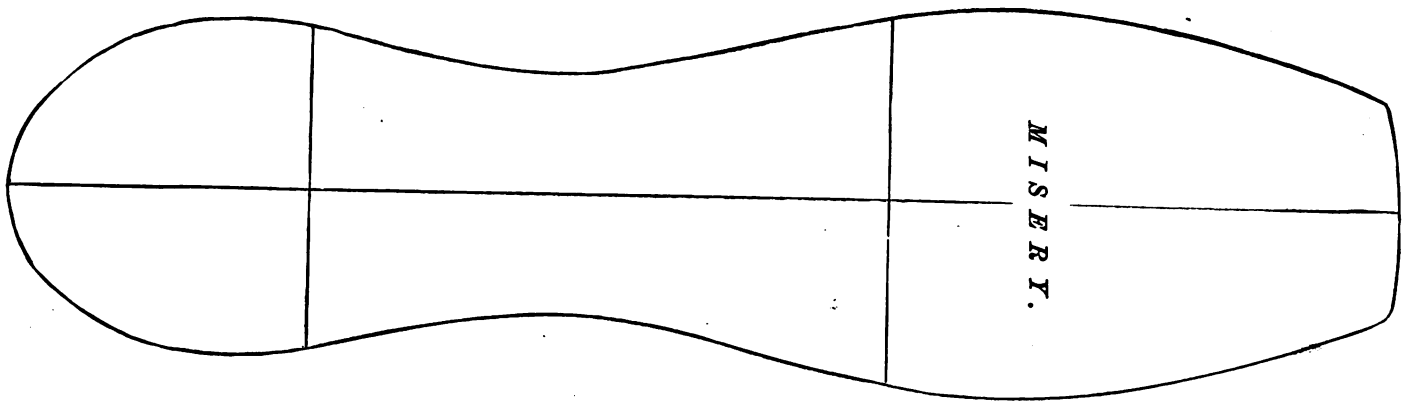
PLATE I.



Straight sole. The ideal of the shoemaker.

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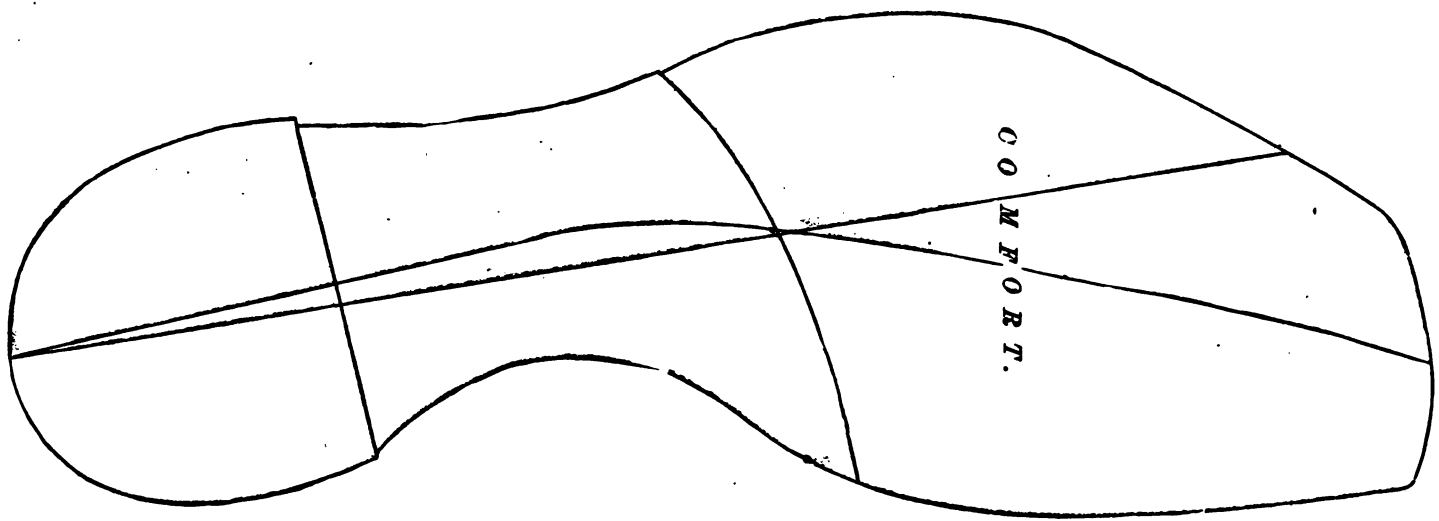
PLATE II.



Curved sole. The ideal of the anatomist.

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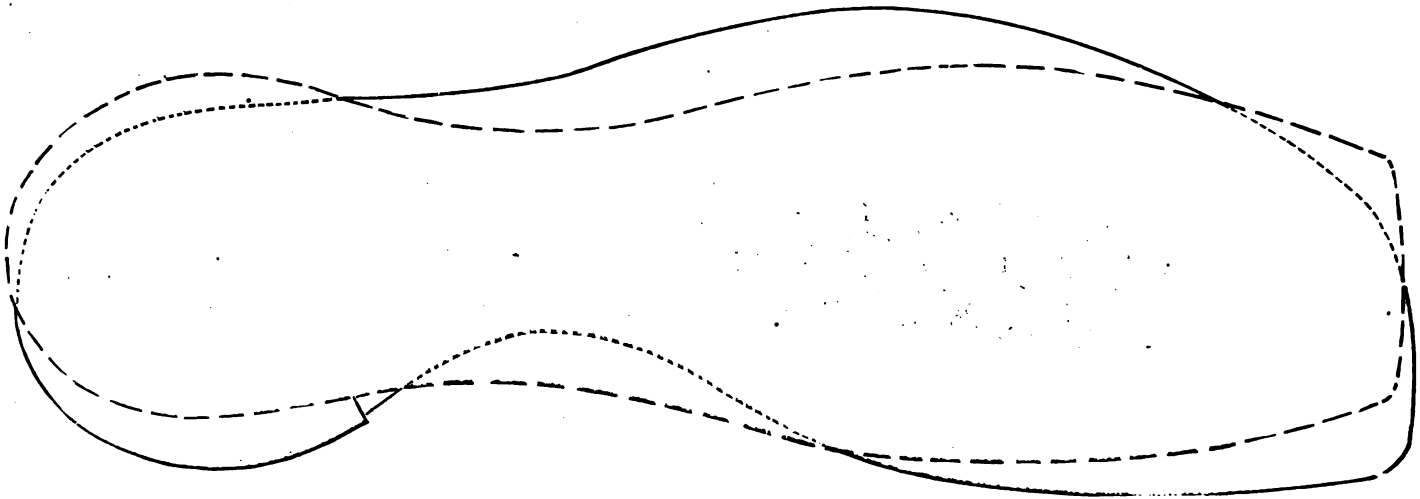
PLATE III.



The straight and curved soles contrasted, showing where the pressure is exerted in straightening out the foot.

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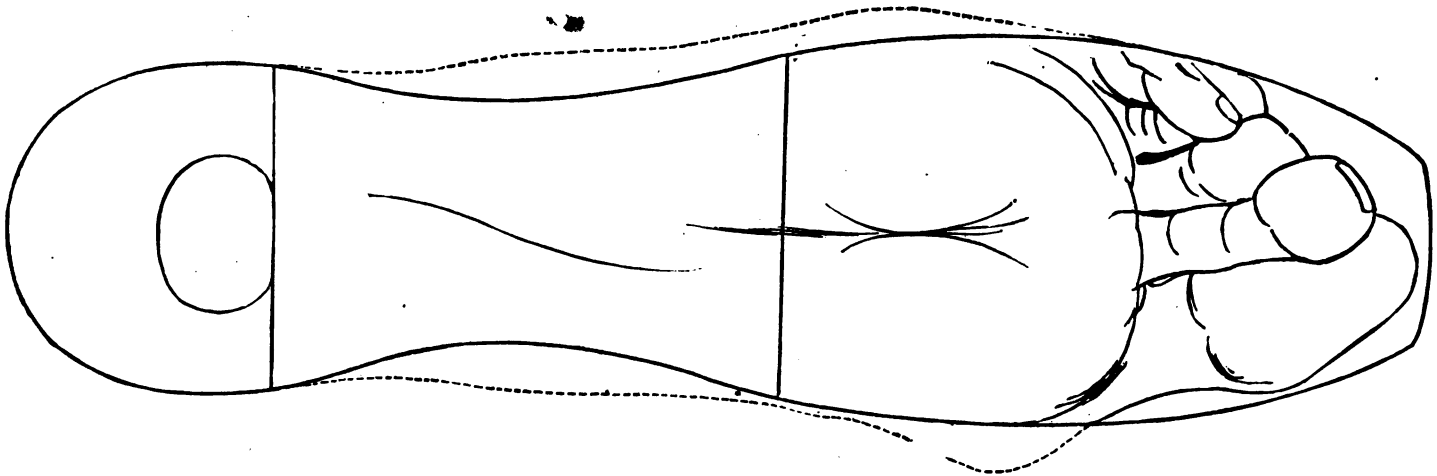
PLATE IV.



The position of the toes in a straight-soled shoe.

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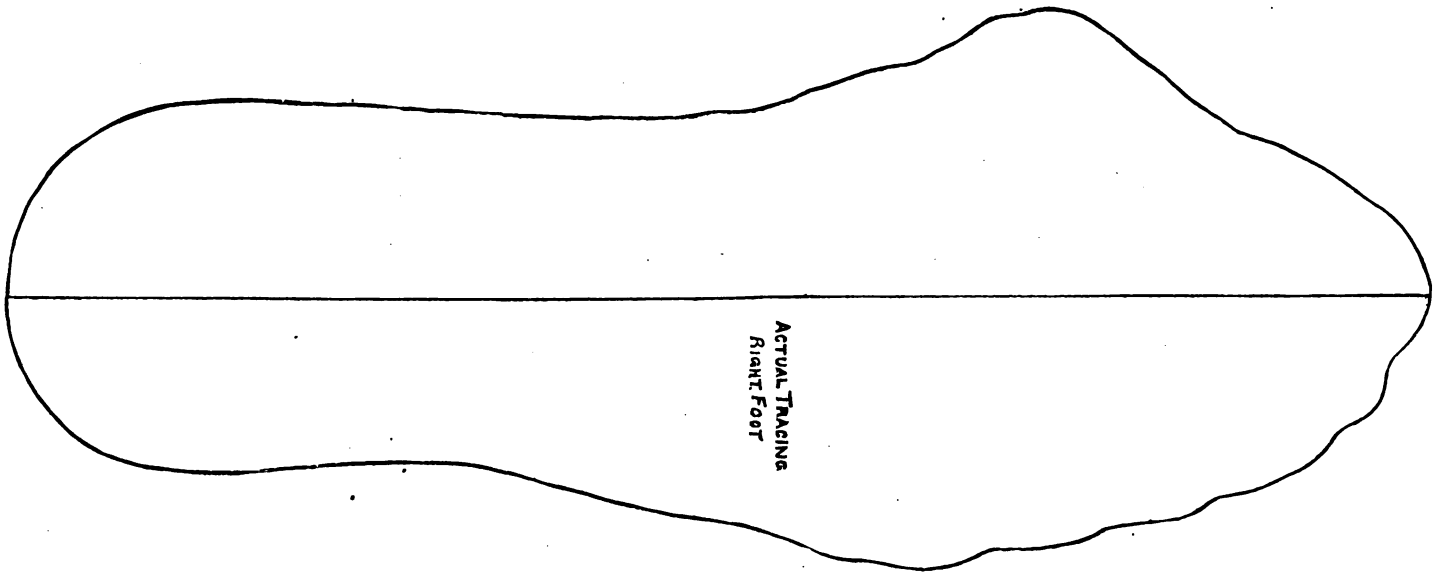
PLATE V.



The straight foot. The shoemaker's triumph.

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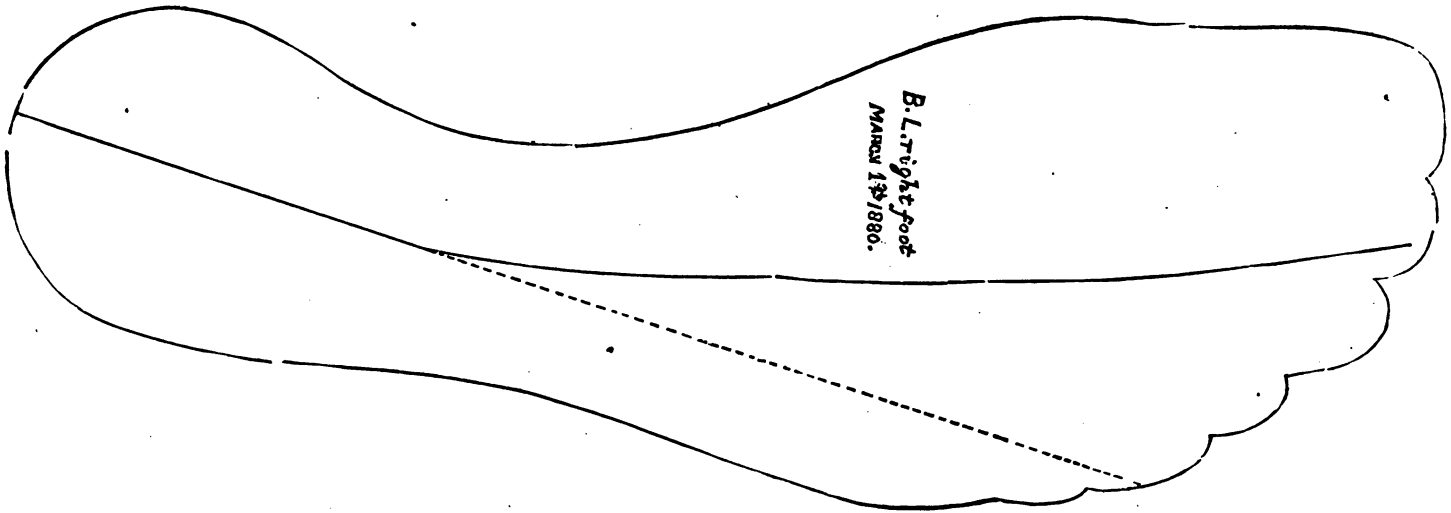
PLATE VI.



Twenty years of an anatomical shoe.

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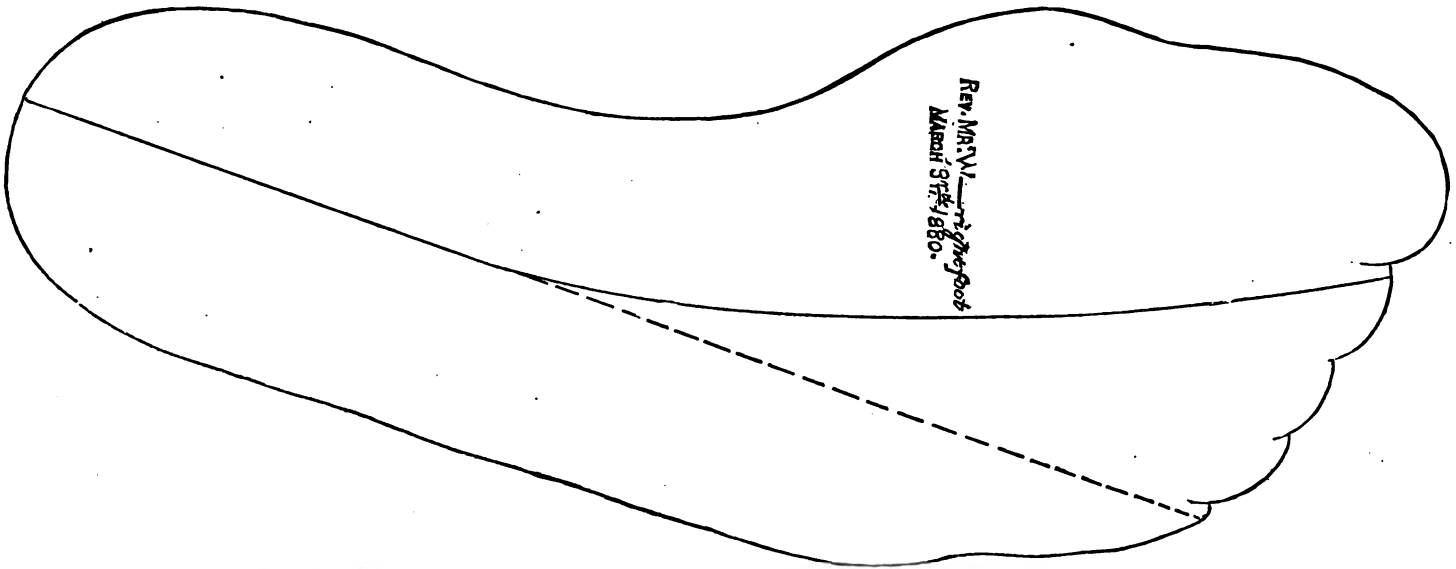
PLATE VII.



A nearly natural foot. The result of wearing easy broad-soled shoes.

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PLATE VIII.

A foot once deformed by shoes partially restored by disuse of shoes.

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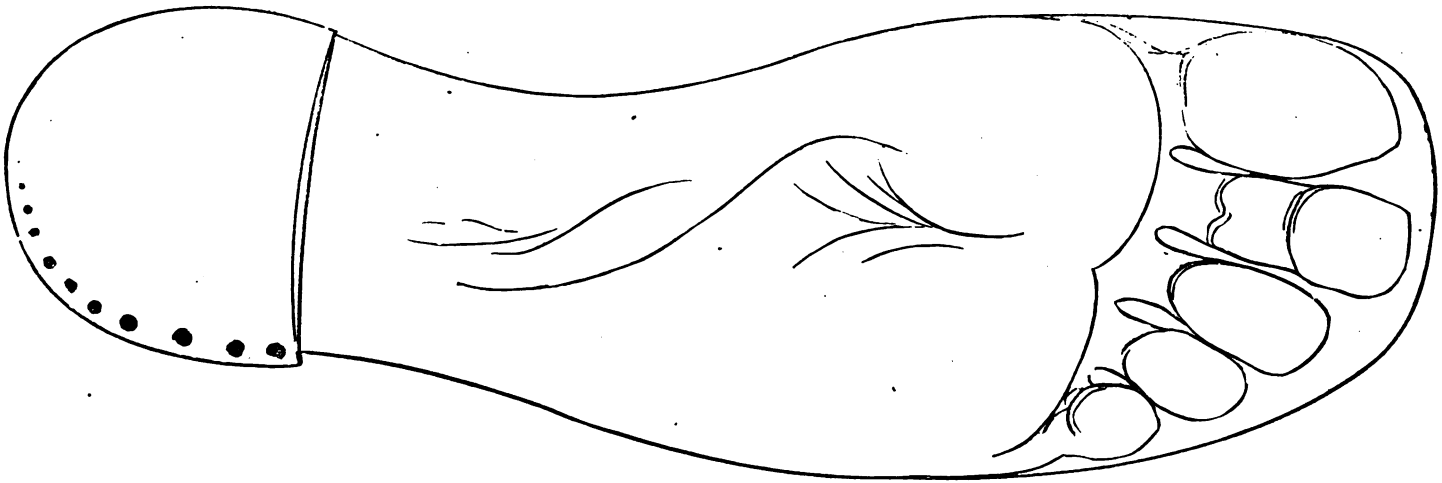
PLATE IX.



Position of toes in an anatomically constructed shoe.

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SOME POINTS IN THE CONSIDERATION OF PUERPERAL SEPTICÆMIA.

By WM. H. PARISH, M.D.,
OBSTETRICIAN TO THE PHILADELPHIA HOSPITAL.

I PREFER the term "Puerperal Septicæmia" to "Puerperal Fever." It has a number of advantages. A diagnosis of puerperal fever is liable to seriously alarm the patient and also such pregnant women as may learn of the patient's illness. The term puerperal fever carries with it no indication as to the origin or nature of the disease unless it be the erroneous one of being a peculiar specific fever. The term too is employed with varying meaning by different authorities, some extending its application to all conditions non-infectious as well as infectious, following labor and attended with elevated temperature.

Puerperal septicæmia is less open to these objections and has the great advantage of carrying with it the teaching that the disease is not dependent upon a peculiar poison, but has its origin in the entrance into the system of septic poison derived at different times from a great variety of sources.

The truth of this teaching cannot now, it seems to me, be denied. Numerous experiments on the lower animals have demonstrated the fact that a septic fluid injected into the genitals after delivery will produce the same symptoms and the same lesions which result in a puerperal woman by reason of retention, decomposition, and absorption of portions of the products of conception. The disease produced in the lower animal experimented on and that in the woman are identical. In each it is septicæmia. If from such a patient the physician or the nurse in immediate attendance goes to another parturient woman, and this second patient is seized with similar symptoms and dies presenting similar lesions, is not the proof equal almost to that of actual experimentation that a third party has conveyed a *materies morbi* from a septicæmic patient to one previously healthy and has established in her septicæmia? And if in the experience of such physician or nurse, a number of puerpe-

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ral women are thus similarly attacked in rapid succession, have we not an endemic of so-called puerperal fever, and is there any process of reasoning by which we can ascribe these cases to a specific poison? Was it not septicæmia in the first case? and is it not septicæmia in each succeeding case? I think that I have met with such a series of cases in the Philadelphia Hospital, presenting such a sequence of cause and effect.

It is claimed that there are differences in the symptoms presented by a patient suffering with blood-poisoning from absorption of septic fluid derived from decomposed placenta, etc., and cases of endemic puerperal fever.

The differences are readily explained by the difference in the malignant activity of the poison and in the manner of its entrance into the system. It is a clinical fact that endemics of puerperal fever vary in intensity and in malignancy, and also that the earlier cases are less malignant than the successive ones, the activity of the poison increasing with successive cases unless combated by proper measures. This behavior on the part of the poison is in exact accord with actual experimentation with septic fluid on the lower animals. Thirty drops of a septic fluid were required to produce poisoning in the first animal; as the poison was transferred from the genitals of one animal to those of another in successive experimentation, the activity of the poison increased rapidly until the smallest fraction of a drop would cause the most intense poisoning.

In retained placenta the process of poisoning is gradual and progressive because of the continuous absorption of a poison as yet comparatively feeble in its activity; hence the symptoms appear gradually and progressively.

In endemics the patient receives at the confinement the poison already possessed of extreme activity; hence the symptoms of poisoning appear early, are of great severity, and a fatal result may quickly occur. In the patient with retained and decomposing placenta there must be time for decomposition to develop the poison; at the expiration of this time nature has placed at least partial obstruction in the way of absorption, so that this process is slow. Moreover, the poison has not gained its highest activity because it has not had opportunity to pass through the congenial system of a puerperal patient. For these reasons the symptoms appear later, are more insidious, and a fatal result is longer delayed.

But it has been said, who has heard of septicæmia following a surgeon from patient to patient as puerperal fever tracks the obstetrician at times? The surgeon never meets with a patient presenting conditions systemic or local analogous to that of the

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puerperal woman. The functional disturbances, the blood alterations, the susceptibility and impressibility, the incapacity for resisting the eucroachments of disease are under no other circumstances so marked as in the puerperal woman. In her the ravages of disease meet with but little resistance, they are even intensified, as note malaria, scarlatina, typhus, and smallpox.

The placental site of the post-partum uterus has been compared to the surface of a flap in an amputation. The comparison is a feeble one. The absorbents are peculiarly active in a uterus after labor. Absorption is the active physiological process by which the uterine apparatus, in part at least, accomplishes involution; it is by but an easy perversion that this process with its peculiar activity becomes pathological. Mark, too, the uterus honey-combed with sinuses ready to receive material however noxious, and to transmit it to the general system; the interior of the uterus and of the vagina, a very hot-bed for the generation and proliferation of septic germs; the sinuses themselves, hidden recesses in which septic poison may be secreted and in security be nourished.

Here too German experimentation has shown that whereas the surface of a flap may be bathed in septic fluid with negative results, a small quantity of the same fluid injected into the cavity of a puerperal uterus will occasion the most marked blood-poisoning with its local lesions. These experiments show how much more susceptible a puerperal individual is to the septic poison than is an ordinary surgical patient.

The relation between erysipelas, which tracks the surgeon, and puerperal fever or puerperal septicæmia, which tracks the obstetrician, must here be considered. I think that the identity of endemic puerperal fever and of septicæmia is established, and also is established the fact of the ability of erysipelas and of puerperal septicæmia to mutually communicate each other. So septicæmia also at times follows the surgeon under the form of erysipelas, as it follows the obstetrician under the form of puerperal fever.

I think it important that the septicæmic nature of endemic puerperal fever should be recognized, or otherwise efficient preventive measures may not be adopted.

The close connection between erysipelas and puerperal septicæmia is now generally accepted. Jarvis in his analysis of the U. S. census for 1860, and Miner for 1870, have shown the occurrence of the two affections with greatest frequency in the same sections of the United States, and in the same seasons of the year, *i. e.*, in the spring months. Statistics of such extensive character teach a valuable lesson, although the records of New York City and of

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other cities do not seem to point to a joint occurrence of the two diseases. I have repeatedly noticed the association of the two diseases in the Philadelphia Hospital. The infant contracts erysipelas from its septicæmic mother. The physician conveys a poison from a case of erysipelas to a parturient woman and she has septicæmia. Endemics of puerperal fever have been repeatedly traced to cases of erysipelas as the starting-point. By experimentation a septic fluid applied to a cutaneous wound has produced erysipelas, the same fluid injected into the puerperal genitals causes puerperal septicæmia with its local lesions.

It has been argued, however, that, although from a case of suppurating erysipelas, a septic poison may be conveyed to a lying-in woman, and establish in her puerperal septicæmia, yet, if the erysipelas is non-suppurating—is merely cutaneous—a poison cannot be conveyed to the woman that will produce puerperal fever or septicæmia. This is dangerous and erroneous teaching. The question must be determined by the experience of individuals; not by negative observations, but by the positive experience of those who have been so unfortunate as in this manner to have produced the disease.

A prominent obstetrician of Philadelphia has related to me a fatal endemic originating in his own practice, from a case of cutaneous erysipelas. The poison of erysipelas, whether suppurating or non-suppurating, will establish septicæmia in the lying-in woman.

There seems to be a close relation also between diphtheria and puerperal septicæmia. If a parturient patient is in close proximity to a case of diphtheria, she is liable to contract the disease; but instead of the throat lesions occurring, a most extensive deposit may occur on the genitals, and a fatal termination speedily take place.

In 1866 there was a severe endemic of diphtheria among the children of the Philadelphia Hospital. Soon a virulent endemic of puerperal septicæmia occurred. Yet I have not seen diphtheria develop in the children of septicæmic patients.[1] There does not seem to be as close a relation between puerperal septicæmia and diphtheria as between erysipelas and puerperal septicæmia. Still there are strong reasons for believing that diphtheria develops from the absorption of septic poison. The diphtheritic deposit almost invariably present in the genitals of a septicæmic patient, has been pronounced to be morphologically identical with the deposit in the throat of a case of genuine diphtheria.

The relation of bacteria to septicæmia, erysipelas, and to diph-

[1] There are cases recorded of diphtheria thus originating. See Oliver W. Holmes.

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theria, has become an interesting and an important question. Their abundant occurrence in these three diseases furnishes a further connecting link between them. That these little organisms are the essential causes of these affections is the firm belief of many observers. Whether they are the causes, however, or are merely incidentally present, has yet to be definitely determined.

Scarlatina has a peculiar influence on a puerperal patient. There is great diversity of opinion as to the nature of this influence.

Olhausen has presented the best paper on the subject. He claims that the poison of scarlatina will remain for weeks latent in the system of a pregnant woman, not showing itself until two or three days after delivery, when it will appear with peculiar intensity. He says that pregnancy diminishes, while the lying-in intensifies the susceptibility to the disease; that the disease often progresses without inflammation of the pelvic tissue; that the throat symptoms are usually slight; and that a fatal result may occur without any pelvic lesion being presented after death.

There seem to be instances, however, in which exposure to the scarlatina poison has produced in the puerperal woman virulent pelvic inflammation with systemic disturbance, and with or without a scarlatinous rash. The local and the general conditions in such cases are indistinguishable from those of malignant septicæmia.

I think that malarial fever affecting a puerperal patient, renders her more liable to septic poisoning. It is probable that the poison of malaria, but particularly that of scarlatina, generates in a slight, traumatic lesion, destructive inflammation, that septic material is formed, absorption occurs, and that the patient must thus struggle against septicæmia and scarlatina, or against septicæmia and malaria combined. This explanation would account for the relative greater frequency of puerperal fever in the Southern and more malarial States.

A pelvic traumatic inflammation contributes after labor to the rapid development of septic material. In inflammation the diminution of the lochial flow, the retention of material which should escape in the flow, the increased temperature of the parts, and the relaxed condition of the uterus, contribute to septic decomposition. A puerperal woman suffering from traumatic inflammation should be treated and handled as if her genitals were a storehouse of septic poison, from which her own system may become contaminated, or from which other lying-in women may become infected. The liability of a patient with traumatic puerperal inflammation becoming the source from which septic poison may be transferred to other lying-in women is not sufficiently borne in mind.

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It is mainly in the prevention of puerperal septicæmia that modern views in reference to the disease are proving of the greatest benefit. Accepting the teaching of the septic origin of puerperal fever, prophylactic measures must be of such a nature as will ward off from the lying-in woman all septic material; and in addition she should be protected from those agencies and conditions which increase her susceptibility to the disease. As far as possible she should be saved from traumatism and hemorrhage during labor, from the dangers of a too early getting up, from the effects of a contaminated atmosphere, etc. She should be especially watched if affected with Bright's disease, acute inflammation, or an eruptive or essential fever, etc.

The physician and the nurse should not be contented with observing ordinary cleanliness of hands as obtained by the brush, and by soap and water, but should wash them in carbolized water, before undertaking the delivery.

It is my invariable custom after each forceps delivery, to give my instrument a thorough washing in carbolized water. The custom of using a woollen bag for years as a receptacle for the forceps is a bad one, as is also the custom of daily wearing the same pair of riding gloves for a period of months. Prophylaxis is made up of very many precautions, too numerous to enumerate, but none of them too small to warrant attention.

I believe in the benefits to be derived from the use of hot antiseptic vaginal injections after each labor. They tend to secure complete uterine contractions, check too great oozing of blood from the cavity of the uterus, or from lacerations of the soft parts, keep the genitals free from clots, and stimulate the sexual apparatus to healthful involution. The rule to empty the uterus thoroughly of all clots, membranes, portions of placenta, etc., cannot be too strictly observed. It is reprehensible to leave the placenta or a portion of it in the uterus for a number of days or for several hours, with the hope that it will be eventually expelled without injury to the patient. The poisoning will often be slight, but not infrequently it will prove fatal. When portions of the products of conception are retained in the uterus, even if somewhat adherent, the intrauterine injection of hot water (112° F.) will usually cause their speedy expulsion.

I cannot approve of the introduction of the hand into the uterus, nor of the injection of such a styptic as Monsel's solution, in order to control post-partum flooding. For this purpose, I think that the intrauterine injection of hot water (112° F.) should be the measure adopted, if it becomes necessary to resort to any intrauterine remedy.

In the treatment of puerperal septicæmia, routine measures would prove as unsuccessful as they would be unscientific. Endemic cases,

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however, have a closer resemblance to each other in the symptoms and in the lesions than do the isolated cases; they present more nearly uniform indications for treatment. In endemic cases, which are also cases of external infection, I have seen the most undoubted and marked benefit derived from the *early* abstraction of 16 to 20 ounces of blood by leeches applied to the lower portion of the abdomen. I have followed this application with hot poultices, have used daily hot antiseptic vaginal injections, have given 16 to 20 grs. of quinine daily with morphia enough to relieve pain or restlessness, stimulants as indicated by the degree of depression, and an abundance of nutritious food. During an endemic at the Philadelphia Hospital, in 1877, there was a mortality of 50 per cent. of the cases that were not leeched, while only 12 per cent. of those leeched proved fatal.

In cases of internal infection, which are usually isolated cases, I feel that the abstraction of blood must be deprecated, and for these reasons. In these cases the symptoms of the poisoning come on insidiously, and we scarcely know the incipiency of the disease, and it is only in the incipiency of the disease that the abstraction of blood can be justifiable. The source of the poisoning is usually a mass of septic material, placenta, membranes, clots, sloughs, etc., from which absorption is occurring continuously. A physiological effect of bleeding is to stimulate absorption; hence, this measure would expedite the entrance of septic material into the system. If an attempt is made to remove the offending substance, the removal of all septic material at once need not be expected. The *membrana decidua* under such circumstances has undergone septic decomposition, and its removal must be by a gradual process. Intrauterine antiseptic injections, invaluable as they are, will not at once thoroughly cleanse the uterine cavity. Hence the abstraction of blood in such cases cannot be rendered safe, but must prove harmful. With endemic septicæmia it is different. Here the poison, in a concentrated form, reaches the woman during confinement, and is absorbed at that time or immediately afterwards, and usually from the vulva or lower vagina. There exists in such a woman no mass of putrid material, for subsequent and continuous absorption, and the imperceptible amount of poison deposited on the genitals has probably been entirely absorbed, or is situated where it can be removed by antiseptic syringing. In endemics, then, the abstraction of blood in the very incipiency of the attack does not encourage further absorption of septic material. A trial of the measure has convinced me that it does decided good, and probably not by removing the poison from the system, but by relieving the engorgement of the

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pelvic tissues, and by thus placing these tissues in the best possible condition for successfully resisting the disturbing influences of the poison, until the system, chiefly through the agency of the kidneys, is enabled to get rid of the poison itself.

In the management of cases of septicæmia of internal origin, I endeavor to cleanse the genital canal of all putrid material, by external compression, by syringing with hot water, and, if need be, by the introduction of the hand. In such cases, repeated intra-uterine injections of an antiseptic fluid are imperatively indicated; in fact, they constitute a most essential remedy. Opium, quinine, stimulants, abundant nutrition, with attention to the proper performance of the excretory functions meet the remaining indications.

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THE ABUSE OF MEDICAL CHARITIES.

[THE following Report of the "Committee on the Abuse of Medical Charities" was presented to the Philadelphia County Medical Society on March 24, 1880, adopted by the Society as its Report, and respectfully referred to the State Medical Society.]

REPORT.

The Committee on the Abuse of Medical Charities, consisting of the "Committee on Hygiene and the Relations of the Profession to the Public," with the addition of the following named gentlemen, Drs. S. R. Skillern, R. Burns, W. B. Atkinson, J. G. Stetler, W. T. Taylor, R. J. Dunglison, C. A. McCall, and W. R. D. Blackwood, beg leave to present this their final report. The subject, it will be remembered, was referred to the Committee in the shape of a *Memorial* from the "West Philadelphia Book Club," at the regular meeting of this Society, held May 22, 1878. While, therefore, on the one hand, the Committee feel that they are not open to the charge of having acted precipitately or with undue haste in this extremely delicate matter, they trust that the amount of work they have accomplished, and the tangible results at which they have arrived, will be considered a justification of their action in delaying their report until the present time.

The Committee considered that their first duty was to ascertain the facts of the case—whether such an evil as that represented in the Memorial did really exist, viz., "A wholesale and indiscriminate, gratuitous, medical attendance in connection with the clinics, dispensaries, and other eleemosynary institutions of this city," constituting "a subject of so vast importance and so difficult to overcome as to require concerted action by the profession generally." This question divided itself into two heads. First, Was the actual number of cases treated gratuitously during any one specified space of time for which records could be obtained, say the year 1877, disproportionately large when viewed in relation to the population of the city? and, Second, Is there direct evidence, apart from this general deduction, that persons abundantly able to pay a physician,

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are in the habit, in any considerable number, of obtaining gratuitous advice at the dispensaries? Sub-committees were accordingly appointed to investigate these questions; the work of the first being again subdivided into the discovery of (*a*) the amount of gratuitous service rendered by College Dispensaries, (*b*) the amount of such service rendered by Religious Dispensaries, and (*c*) the amount rendered by General and Special Dispensaries. The reports of these sub-committees (which are appended to this report, see Appendix) appeared to the Committee fully to sustain the complaint of the Memorial, showing that in the neighborhood of one hundred and twenty thousand persons had been prescribed for at the various dispensaries during the previous year (1877), and that instances without number could be cited of individuals, in the possession of ample means, availing themselves of the opportunities provided by the benevolent for the benefit of the poor alone. Fifty-nine such cases were reported specially, with their residences and incomes. Thus assured that they had firm ground to stand upon, the next step taken by the Committee was to endeavor to discover to what extent the managers of such institutions were aware of the impositions which were practised upon them, and to obtain an expression of opinion from them and from their medical staffs, as to the best means of meeting the evil, its existence being acknowledged. This effort took the shape of a circular, embracing the following questions, a copy of which was sent to the Secretary of each Board of Managers, and to the Secretary of each Medical Staff. In taking this step your Committee availed themselves of the experience of the "Committee on the Abuses of Medical Charities of the *New York State Board of Charities.*"

QUESTION I. Should General Dispensaries confine their operations strictly to certain geographical limits?

QUESTION II. In order to restrict the benefits of your institution to those who are really poor, should inquiries be made in each case as to the ability of the applicant to pay for medical advice?

QUESTION III. Would it be advisable to establish, as a standard of qualification for relief, the amount of income, rent paid, or general circumstance sof the individual applying?

QUESTION IV. Would it be well for you to charge at your discretion a fee, either for advice or medicines, or for both?

Replies to this circular were received from fifteen Dispensaries. They are, many of them, full, and contain valuable suggestions. As a rule it was found that they recognized fully the necessity for re-

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pressive measures, but confessed themselves to be without the requisite machinery for undertaking them.

The Committee beg leave to quote from a few of the most suggestive of these replies.

DAS DEUTSCHE HOSPITAL DER STADT PHILADELPHIA. (GERMAN HOSPITAL.)

"The authorities of our institution have long since recognized the importance of reform in the matter which the Philadelphia Medical Society has wisely taken into consideration, and will cheerfully cooperate with said Society and the medical charities of this city to effect the desired end."—*Medical Staff.*

MISSION HOSPITAL.

Question III.

"A check of this sort would be an excellent protection against vagrancy could it be attained, but we cannot see how the information could be reached. The statements of patients in such cases we have found to be utterly unreliable, and our information must be derived from some other source."—*Medical Staff.*

WOMAN'S HOSPITAL.

Question II.

"After the first relief has been given, if there is any doubt as to the poverty of the applicant, or suspicion of imposture, it is suggested that the name and address of the patient be referred to the respective ward bureau of Organized Charity, for investigation, and, upon indorsement by said bureau, the applicant may return for a second visit and for continued relief."—*Board of Managers.*

CHILDREN'S HOSPITAL.

Question II.

"The plan it is proposed to adopt in this institution, is to require applicants whose cases are doubtful, to bring a certificate of worthiness of relief from some charitable organization of their ward or district as a condition of a second visit."—*Board of Managers.*

Question II.

"Patients should be required to present a certificate from the visitor of the poor in the district he or she lives in, or from the secretary of any well-known charitable organization, or from a well-

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known citizen, before being admitted for treatment. This certificate to be taken up and filed, so that it could not be used promiscuously." —*Member of Staff of Wills Hospital.*

GERMAN HOSPITAL.

Question II.

Yes. But as it will often be difficult, if not impossible, to obtain reliable information, we would respectfully suggest that some arrangement might be made with the "Philadelphia Society for Organizing Charitable Relief and Repressing Mendicancy" by which information in any given case might be obtained through the "Ward Associations" of said society.—*Board of Managers.*

It thus became evident that, with the means at their command, both the managers and the medical officers of these charities felt themselves powerless to control an evil which they knew to be growing under their hands. There was a missing link in the chain, viz., *an adequate investigation*, which should leave no doubt as to the worthiness of the applicant.

While these replies were under consideration, overtures were received from the "Committee on Out-door Relief of the Society for Organizing Charity," alluded to in two of the replies above quoted, requesting a conference with your committee, with the intimation that their Society might possibly, through its ward associations, undertake the labor of investigating cases referred to them by the dispensaries for decision. This proposal appeared to your Committee to meet the want. The matter was brought before this Society at the regular meeting held April 23, 1879, and referred back to your Committee for further information. At an adjourned meeting of this Society, held April 30, the subject was reported favorably, and the conference then authorized. The committees met twice in conference, and after free discussion, appointed a sub-committee with full power to act and to report directly to the two societies.

The first act of the sub-committee was to draw up a basis of co-operation of the medical charities with the ward associations of the Society for Organizing Charity. This plan, having received the sanction of the County Society as a tentative measure at the meeting held May 14, 1879, was forwarded to the boards of managers and medical staffs of all the charities in question for their consideration and advice.

At the same meeting this Society gave its sanction to the suggestion of the Committee of Conference, that it was expedient to call a public meeting of the entire medical profession of the city, to dis-

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cuss the subject, and decide upon some definite line of action, which could be accepted by all the parties interested. The summer and autumn months were employed by the sub-committee in holding informal conferences with the medical staffs of all the institutions giving dispensary relief, with the double purpose of explaining to them the suggestions of the circular and of obtaining a familiar expression of their opinions as to the expediency of adopting them. These interviews established, beyond all doubt, the fact that the attending physicians and surgeons objected strongly to undertake the labor of investigation themselves, feeling that, however great its importance, it was not for that purpose that they offered their services; that it consumed valuable time which could be more profitably occupied, both for the patients and themselves, and that they especially shrank from the inquisitorial character of the work. At the same time they developed not less clearly the fact that those who are most intimately acquainted with the workings of these institutions are the most keenly alive to their liability to abuse, and to the wrong which is thus inflicted, first, and most important of all, on the recipients of the misappropriated bounty themselves; second, upon its benevolent donors; and, third, upon our own profession, ever foremost, as it is, in the Christ-like work of relieving the suffering poor.

Having thus, as they conceived, carried the work as far as it was possible for them to do so unaided, the Committee of Conference issued, with the approbation of this Society, an invitation to every member of the profession in this city to be present at a meeting to be held in the Hall of the Philadelphia County Medical Society on the evening of Saturday, Jan. 24, 1880, to consider the proposed plan of co-operation; the purpose of which was stated to be "to protect the medical charities and the members of the medical profession from imposition on the part of applicants for out-door relief of hospitals, or for dispensary relief, who have the ability, either wholly or in part, to pay for their treatment; to prevent overlapping in the general dispensaries; and to avoid the lowering effect upon the self-respect and independence of our people induced through indiscriminate relief."

Accompanying the invitation in each case, a copy of the plan of co-operation was sent, in order that it might be maturely considered in advance. This plan contained many of the essential features of that at first submitted to the officers of the medical charities, but with decided modifications in accordance with their criticisms and suggestions.

This meeting was presided over by Professor Gross, who, upon

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taking the chair, explained the objects of the meeting in a short but pointed address, which showed that he was fully in sympathy with them. Certain of his statements were so remarkable that we feel justified in repeating them, and giving them the weight of his distinguished name. After alluding to the immense crowds which throng our clinics, he went on to say: "At least one-half of these people, if due inquiry were made, would be found to be able to pay something for medical services. If this be so, then nearly one-half of these people are practising a vile imposition upon the bestowers of charity and upon the medical profession. It is not our wish to strike a blow at charity, but simply to give charity a proper direction—to draw a line of demarcation between the deserving and the undeserving."

"This subject has, during the last ten years, attracted much attention in Great Britain, and many of the most distinguished medical men, as well as laymen, have taken an active part in correcting what all right-thinking persons must regard as a great evil, a great and crying shame. It is estimated that in London, in 1873, 1,288,000 persons received gratuitous advice and medicines. In eight of the London hospitals alone 300,000 patients were thus treated. In the provincial cities and towns the same proportion of pauperism exists. In New York, in 1876, in eleven general dispensaries, 194,000 were treated indoors and nearly 10,000 more in their homes. If to these figures we add 21,000 patients treated in the eye and ear infirmaries, we shall have a total of 225,000, or fully one-fourth of the population of that city, receiving free medical and surgical aid. It is asserted by those who are familiar with the facts that at least sixty per cent. of those patients were able to pay a small fee. In Boston, in 1877, 100,000 people, or more than one-quarter of the entire population, received charitable aid in the form of medical attendance. These figures are simply appalling, and are well calculated to arrest general attention. They plainly show that medical men, as well as charitable men, have long been the unconscious propagators of fraud and immorality."

Dr. H. Lenox Hodge, as Chairman of the Sub committee of Conference, reported the following recommendations:—

First. That all applications for relief shall be made in the first instance at the offices of the Medical Charities.

Second. That applicants with families in receipt of $9 a week or more; unmarried persons receiving $6 or more; and persons living out at service, are able to employ a physician, and should be refused treatment; and that applicants should be so advised through

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the cards of the Medical Charities, as well as by notices placed on the doors of the service rooms.

THIRD. That applicants who may be admitted to treatment shall be required to pay for their medicine, or to deposit ten cents at each visit in a box provided for the purpose, unless exempted through procurement of a certificate of the ward superintendent of the Society for Organizing Charity, on which the words "unable to pay" shall be noted. This condition should also be placed on the cards and on the notices on the doors of the service rooms.

Dr. Sturgis, of New York, by special invitation detailed the workings of the fee system in the dispensaries of that city, with which he has been connected for several years, having made the defeat of fraudulent mendicancy on medical charities an especial study.

His remarks, which were listened to with great interest, showed most conclusively that concerted action on the part of the various dispensaries cannot fail to exert a repressive influence on this evil to an unlooked-for degree.

The following resolutions, offered on behalf of the Sub-committee of Conference by Dr. Lee, were then unanimously passed:—

"*Resolved*, That efforts should be made to prevent the pauperizing and enervating influences of undue and indiscriminate medical charity.

Resolved, That care should be taken that the funds contributed by the benevolent to our hospitals and dispensaries are bestowed only upon the poor.

Resolved, That measures be taken to arrange the dispensary system so as to cover the whole city, in order to afford relief to the poor in every part at an office near their homes, and to prevent overlapping in the treatment of cases.

Resolved, That a committee be appointed to carry into effect the plan which has been proposed at this meeting, or such modifications of it as they and the several hospitals and dispensaries may deem advisable.

Resolved, That this committee be called 'The Committee on Co-operation of the Medical Charities with the Ward Associations of the Society for Organizing Charity.'

Resolved, That this committee be composed of the medical and surgical staffs of the various hospitals and dispensaries, or of representatives from each.

Resolved, That this committee shall call an annual meeting of the profession for the purpose of hearing a report of what has been accomplished during the year previous.

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Resolved, That the officers of this meeting be the corresponding officers of this committee."

Your Committee, therefore, respectfully recommend that, as the further prosecution of this important reform is in hands which will carry it on wisely and, there is good reason to hope, successfully, the subject of the Memorial of the West Philadelphia Book Club, referred to your Committee May 22, 1878, be left in charge of the "Committee of Co-operation," thus established, for their future action.

By order of the Committee.

Signed, BENJ. LEE, *Chairman*,
R. A. CLEEMANN,
J. HOWARD TAYLOR,
F. WOODBURY,
A. NEBINGER,
G. HAMILTON,
C. W. DULLES,
A. DOUGLAS HALL,

Committee on Hygiene and the Relations of the Profession to the Public, of the Philadelphia County Medical Society.

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APPENDIX.

A Tabular Statement of the number of cases treated at the different Dispensaries of Philadelphia during the year 1877, *as extracted from their published Reports, or based on careful estimates.*

Name of charity.	Dispensary patients.	Visits to dispensary.	Patients visited at their homes.	Number of visits at homes.
Charity Hospital Dispensary	7,644	22,932		
Children's " "	7,600	15,279		
Church Dispensary of Southwark	7,231	21,691		
Dispensary for Diseases of the Rectum, etc.	70	401	7	35
Dispensary for Skin Diseases	370	2,146		
Episcopal Hospital Dispensary	12,229	25,163		
German " "	1,185	2,178		
Germantown " "	510	1,206		
Gynæcological Hosp. and Infirm. for Dis. of Children	300[1]	1,200		
Homœopathic Hospital Dispensary	7,384	11,618	1,512	
House of Industry "	3,046	9,139	76	380
Howard Hospital "	7,240	24,516		
Jefferson Med. Col. "	3,500[1]			
Jewish Hospital "	80	240		
Mission Hosp.. and Disp. for Women and Children	3,124	5,439	1,041	4,456
Northern Dispensary	14,821	44,463	1,989	9,945
Orthopædic Hospital Dispensary	806	1,778		
Pennsylvania " "	3,924	17,867		
Pennsylvania Disp. for Diseases of the Skin	413	1,793		
Philadelphia Dispensary	9,667	19,334	1,118	5,590
Philadelphia Dispensary, Obstetrical Department	266	1,082	139	695
Philadelphia Dispensary, Eye and Ear Department	3,260	22,764		
Philadelphia Ear Infirmary	258	1,004		
" Lying-in Charity	70	350	476	2,380
Presbyterian Hospital Dispensary	1,532	4,378		
Sisters of St. Francis "	2,551	8,040		
Southern "	6,484	19,452		
St. Christopher's "	1,365	2,860		
St. Joseph's Hospital "	1,100[1]	3,300		
St. Mary's " "	2,551	8,040		
University " "	5,940			
Wills Eye " "	4,082	28,574		
Woman's " "	6,070			
City District Physicians "	.....	.....	3,670	18,350
Total	126,673	328,227	10,028	41,831

[1] Estimated.

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A Tabular Statement of Persons receiving Gratuitous Medical Attendance at Public Hospitals and Dispensaries, in Philadelphia, who are in good if not wealthy circumstances; obtained by the Committee from what they deemed reliable sources of information.

Number.	Person attended.	Residence.	Property owned (O), or rented (R).	Assessed value, or rent paid annually.	Ability of the parties to pay	PLACE WHERE ATTENDED. University (U). Jefferson (J). Penna. Hosp. (P). Dispensaries (D). Not definitely known (I).
1	Lady	N. 18th St.	O.	$9500	Ample	U. and Wills Hospital.
2	Family (5)	Vine "	O.	(2 houses) $14,000	"	U. J. and Disp. Skin Diseases.
3	" (4)	N. 21st "	O.	(4 houses) about $12,000	"	U. (frequent visitors).
4	" (3)	" "	R.	$480	Good	Alternate between Hospitals.
5	" (3)	S. 21st "	R.	533⅓	Ample	" " "
6	Gentleman	Broad "	Boarder	(weekly) $25	"	D.U. and occasionally to physician.
7	"	N. 22d "	R.	$360	"	Alternate between D.
8	Family (3)	Race "	R.	480	Good	U. and J.
9	" (4)	N. 19th "	R.	525	"	Alternate.
10	" (4)	Mt. Vernon	O.	8000	Ample	"
11	" (3)	Fairm'nt Av.	O.	5500	Good	"
12	" (2)	Brown St.	R.	360	"	"
13	" (6)	Hare "	O.	3000	"	U. and P.
14	" (2)	N. 19th "	R.	480	"	D. and occasionally to physician.
15	" (2)	" "	R.	400	"	D.
16	" (3)	Pine "	O.	3850	"	Howard Hospital.
17	" (4)	" "	R.	365	"	P. and D.
18	Lady	Spruce "	Boarder	(weekly) $18	"	Alternates (chronic disease).
19	"	34th "	R.	$750	Ample	U.
20	Family (2)	S. 16th "	R.	500	"	J. and P.
21	" (4)	" "	O.	5000	"	P.
22	" (5)	S. 18th "	R.	565	Good	U. and D.
23	" (3)	Sansom "	R.	360	"	Alternate.
24	" (2)	Filbert "	O.	6000	"	"
25	Gentleman	Broad "	Boarder	(weekly) $22	Ample	I.
26	"	" "	(same h.) Boarder	(weekly) $25	"	I.
27	"	Walnut "	Boarder	(weekly) $15	"	I.
28	"	" "	(same h.) Boarder	(weekly) $15	"	D.
29	Family (6)	S. 20th "	O.	$5000	Good	U. and P.
30	" (5)	" "	R.	650	"	Alternate, and sometimes physician
31	" (5)	" "	R.	400	"	D. and sometimes, if compelled, physician.
32	" (2)	S. 21st "	O	(about) $3000	"	D., and physician, if unable to move.
33	" (3)	Hamilton "	O.	4500	"	Alternate U. and D.
34	" (2)	Callowhill "	R.	540	"	D. and U. and D. for Dis. Skin
35	" (3)	Vine "	R.	520	"	Orthopædic and U.
36	" (4)	N. 20th "	O.	(about) $5000	"	Children's and U. Hosp.
37	Lady	Race "	O.	8000	Ample	Wills Hosp. and U.
38	Family (2)	N. 21st "	R.	480	"	Alternate D.
39	Gentleman	N. 15th "	R.	600	"	Alternate D. and Hospitals.
40	Family (3)	S. 12th "	O.	6000	Good	P. and D. Dis. Skin.
41	Gentleman	Bainbridge	O.	4000	Ample	Univ. Jeff.
42	Lady	" "	O.	4000	"	Univ. Pa.
43	"	" "	R.	350	"	Howard Hospital.
44	"	" "	R.	333⅓	"	Univ. Pa.
45	"	" "	R.	280	Good	Alternate.
46	Gentleman	Catherine "	R.	300	"	"
47	"	Christian "	R.	420	Ample	Univ. Pa.
48	"	" "	R.	400	"	"
49	Lady	" "	R.	....	Good	"
50	"	S. Broad "	O.	8500	Ample	"
51	"	S. 17th "	R.	350	Good	"
52	"	Carpenter "	R.	280	"	"
53	"	S. 15th "	R.	360	"	"
54	"	" "	R.	360	"	Jeff. Hosp.
55	"	S. 22d "	R.	....	"	Univ. Pa.
56	"	Delancey Pl.	O.	3500	Ample	Univ. and Wills Hosp.
57	"	Pine St.	O.	4600	"	Univ. and Jeff. Hosp.
58	Gentleman	Lombard "	R.	420	Good	" "
59	Lady	Race "	R.	400	Ample	Wills Hosp. and Disp.

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Those marked *Good* as to ability to pay are able to pay readily $200 per annum. Those marked *Ample* are able to pay greatly more than those marked "Good." The above list was collected, and the "assessed value or rent" ascertained from OFFICIAL sources.

There are many other examples under observation, but not determined accurately enough to go into this Report.

The Committee present the following Extract from a "*Plan for Co-operation of the* MEDICAL CHARITIES *of the City, with the Ward Associations of the* PHILADELPHIA SOCIETY FOR ORGANIZING CHARITY, *having for its objects an avoidance of the pauperizing effect of indiscriminate Medical relief, and the protection of the Medical Charities from imposition.*"

Both in Europe and in this country very active measures have been established to protect communities from the pauperizing and enervating influences of undue and indiscriminate relief, and to give a better direction of the funds of contributors in reaching the worthy poor. Foremost in this question are the Medical Charities.

London[1] is said to give Medical Charity to one out of every three or four of her population; New York[2] in about the same proportion; Boston[3] to one in four and a fraction; Philadelphia to one in five and a fraction.[4]

Overlapping and duplication in the registration of beneficiaries at the different services, and other conditions, must account for a large exaggeration in this stated ratio; but the evidence of a very large imposition upon the services rendered at the offices of our Medical Charities is justly complained of by our Medical Staffs and by the general Profession. The numerous and rapidly increasing attendance of patients at many of the out services of our Hospitals and Dispensaries, overtaxes the energies of the medical officers, and is a disadvantage to the patient from the limited time that can be allowed for diagnosis and treatment. But it is because of the lowering effect upon the self-respect and independence of our people that this indiscriminate medical relief is chiefly to be deplored. In London the Medical Profession have been taking the subject into very thorough consideration for the last nine years, and through a system of Provident Dispensaries, as well as through investigation by the visitors

[1] Dr. Joseph Rodgers, British Medical Journal for May 27, 1871, and Reports of five Sub-committees of Physicians.

[2] First Report of the Committee on the Abuses of Medical Charities to the State Board of Charities of New York.

[3] Proceedings of Norfolk District Medical Society of Massachusetts, 1877.

[4] Reports of Investigating Committees.

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of the Charity Organization Society, they are doing much to restrain the evil.

The subject has been for the last few years under active discussion in New York,[1] Boston, Philadelphia, and our Western cities.

While Provident Dispensaries are under favorable consideration, it is realized that the first step towards remedy must be a complete system of investigation.

In this city the PHILA. SOCIETY FOR ORGANIZING CHARITY AND SUPPRESSING MENDICANCY affords, through its Ward Associations, the means of investigation that would appear requisite.

To facilitate this end, the following dispositions are recommended:—

1st. That the seven GENERAL DISPENSARIES of Philadelphia, to wit: The Southern, the Philadelphia, The Northern, The Philadelphia Society for the Employment and Instruction of the Poor, The Howard Hospital and Infirmary for Incurables, The Charity Hospital, and The Church Dispensary of Southwark, divide the city of Philadelphia east of the Schuylkill River into districts, composed of groups of wards, and that their services be confined to applicants residing within their several districts, as far as their Charters will permit.[2]

A convenient division it is found could be made of the city in accommodation with the limits already practically adopted by these Dispensaries.

This Territorial Distribution would secure—

1st. Convenience in co-operation with the Ward Association.

2d. A due apportionment of their services.

3d. An avoidance of overlapping in the registration and treatment of Beneficiaries, and the checking of the so-called Rounders on Medical Charities.

It is considered very desirable and is strongly recommended that the services of the Visiting Physicians at the houses where patients are unable to attend the office of the Dispensary should be so extended as to cover the whole city. Visiting Physicians are now

[1] It is stated in the last report (for the year 1878) of the New York Dispensary, that a charging system of ten cents per visit as part payment for medicines has been introduced, and with very satisfactory effects. Only six per cent. were found unable to pay the fee, and were placed on the free list. These payments added between $3000 and $4000 to the revenue of the dispensary for the year. The report also states that the system of charges is in operation with the other general dispensaries with possibly one exception.

[2] The seven General Dispensaries of New York have divided the city between them, each confining relief to its own district.

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provided by the Philadelphia Northern Dispensaries, and the great value and importance of this provision as a true and needed charity is respectfully urged upon the attention of the management of the Southern, of the Philadelphia Society for the Employment and Instruction of the Poor, of the Howard, of the Charity Hospital and of the Church Dispensary of Southwark, inviting the addition of these services to the relief already afforded by these institutions. The service attempted by the Physicians of the Guardians of the Poor is found to be insufficient in force to cover adequately their Districts. It is not deemed *practicable* or *desirable* to confine the Out-door (Dispensary) relief of *Hospitals* or of any of the *Special Dispensaries* to given *Districts.* The foregoing propositions relate to territorial distribution, and are therefore necessarily restricted to the *General Dispensaries.*

All the Medical Charities, whether general or special, are urged to co-operate in having investigation made of applicants for Out-door (Dispensary) relief, where discrimination may be required, as proposed through the Ward Associations of the PHILADELPHIA SOCIETY FOR ORGANIZING CHARITY AND SUPPRESSING MENDICANCY. A charge of 10 cents per visit, or for medicine, may be made, unless specially exempted after investigation, and provided their Charters do not prevent. Out-door patients, however, who may offer and shall be required as subjects for clinical instruction should be admitted for treatment without investigation or payment of fee. Applicants for admission to the Hospital Wards may be referred for investigation at the discretion of the admitting officers.

It is suggested that the conditions for Medical relief differ from other forms of relief—

1st. In that physical suffering cannot be passed by; and

2d. In that the relief, not being exchangeable, is not liable to abuse.

The question of investigation, therefore, should be as to the ability to pay, and not upon the moral standing of the patient, as the general rule.

The payment of a small fee would tend to preserve the self-respect of the applicant and, at the same time, aid in the support of the services, and would, in a measure, check an undue recourse to the Medical Charities.

The very salutary effects that have resulted from this system of fees in New York would commend strongly its adoption by all the Medical Charities of Philadelphia, unless prohibited specifically by the terms of their Charters.

It is believed that these provisions are sufficiently simple to be

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put in immediate operation without difficulty, and that the general ability to pay the fee, as evinced in New York, will give comparatively few cases for investigation. It will be observed that the investigation will only be required (1) when the applicant is believed to be above the class for Medical Charity, and that the reference to the Society for investigation will be exercised at the discretion of the Medical Staff; and (2) where the beneficiary pleads an inability to pay the fee. It is believed, from experience in New York and elsewhere, that over 90 per cent. are able to make this small contribution to the funds of the institution, and that, if the practice is generally adopted, in a very short time the requirements will become understood by the patients, and but few cases will ask for the exemption. These cases would in most instances, it is presumed, apply to the Ward Offices for the Certificate of the Superintendent before appearing at the Medical Charity. If not, the Medical officers, unless in cases of special distress or urgency, will refer the applicant to the Ward Office for the Certificate, *before* treatment. When ignorance of the Ward Office is claimed, the applicant should be referred to the office of the Ward Association in which the Medical Charity is situated for the needed information.

Diagrams showing the location of the several Ward Offices would also be furnished to each Medical Charity from the office of the SOCIETY FOR ORGANIZING CHARITY.

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REPORTS

FROM

COUNTY MEDICAL SOCIETIES.

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FORM OF COUNTY REPORTS TO THE MEDICAL SOCIETY OF THE STATE OF PENNSYLVANIA.[1]

I.—CAUSES WHICH MODIFY THE HEALTH OF THE COUNTY.

1. LOCALITY:

   Boundaries of county, and its situation in the State.

   Its proximity to large rivers and the lakes; to mountain ranges; their direction and extent.

2. HYDROGRAPHY OR DRAINAGE:

   Size and direction of watercourses, and of the dividing ridges, or water-sheds.

   Extent of river bottom.

   Power and rapidity of streams; danger and frequency of inundation.

   Quantity of marshy or springy soil.

   Artificial water channels and reservoirs; amount of lockage.

3. TOPOGRAPHY:

   Area and mean altitude of county.

   Population and their lineage; chief avocations.

   Location and size of principal towns.

   General character of surface; principal valleys and eminences.

   Nature and extent of surface destitute of vegetation, tilled, covered with forest, or in grass.

   Agricultural produce; kinds of timber; effects of clearing and of drainage on climate; extent of artificial irrigation.

4. GEOLOGY:

   Geological position, actual location, dip, direction, and extent of the different formations.

   Character of soil, subsoil, and subjacent rock.

   Source and nature of water used for domestic purposes.

   Supply of water to towns; kind of pipes used as conduits.

   Map with geological features named, and colored agreeably to the order adopted by the State Geologist.[2]

5. METEOROLOGY:[3]

   Latitude, longitude, and altitude of observer.

See printed *Transactions*, vol. v. p. 52.

[2] Inclose, by dotted lines with proper marginal references, those sections of the county in which epidemics have prevailed.

[3] Observers for the Franklin Institute, Philadelphia, as well as for the Smithsonian Institution, Washington, reside in a number of the counties, and would furnish all the meteorological information required. See page 16, Part iii. 1858.

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Barometric, thermometric, and hygrometric states of the atmosphere for every day in the year, indicating, in columns, the amount in inches of rain, hail, and snow.

II.—MORTUARY TABLES.[1]

1. MORTALITY:
   From fevers; from measles, smallpox, and varioloid.
   From diseases of the lungs and air-passages.
   From diseases of the nervous system.
   From diseases of the organs of nutrition.
   From diseases of the urino-genital organs.

2. CAUSES assigned for death where the number exceeds 10 per cent. of the whole.

3. QUARTERLY TABLES, showing the whole number of deaths of white and of colored persons under 1 year, from 1 to 2, from 2 to 5, from 5 to 10, from 10 to 15, from 15 to 20, and for every decennial period over 20.

III.—PREVALENT DISEASES.[2]

1. EPIDEMICS AND ENDEMICS OF THE YEAR:
   Their origin and march; apparently contagious or not; how affected by race, age, sex, temperament, avocation, circumfusa, ingesta, and the density of population.

2. FEVERS:
   Intermittent and remittent; their frequency as compared with that of former years.
   Typhus and typhoid fevers; smallpox; benefits of vaccination; measles; scarlatina.

3. OTHER DISEASES:
   Observations on their etiology, pathology, and therapeutics.
   Peculiarity of type or tendency.
   Number of cases, and a comparison of it with that of other years.

4. MISCELLANEOUS:
   Medical effects of indigenous plants, and of new remedies.
   Facts of interest in surgery and obstetrics.
   Notices of members deceased during the year.
   List of officers and members.

[1] If, as is to be feared in many counties, the materials for this classification cannot be obtained, the reporter is requested to approximate as closely to it as his means of information will admit.

[2] In describing cases, give the age, sex, condition, and location of patient, season of year, treatment, and termination.

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REPORT OF THE ADAMS COUNTY MEDICAL SOCIETY.

LAST year's report by Dr. J. W. C. O'Neal, former secretary, in regard to the topography, drainage, geology, etc., was so elaborate and satisfactory that further investigation into the above-mentioned subjects is deemed unnecessary. Respecting the condition of our Society I can safely report a growing interest manifested by all its members, and a considerable increase of membership. Concerning diseases prevalent during the last year little can be said. No epidemics of any kind were reported. Sporadic cases of scarlet fever occurred here (Gettysburg) and throughout the county, but, with the exception of a few fatal cases, all recovered, yielding readily to treatment. It appeared in the form of scarlatina simplex.

Dr. R. B. Elderdice, of McKnightstown, submits his report for the year 1879, given in full. Dr. Chas. Horner, of Gettysburg, also reports an interesting case of placenta prævia, in which version was promptly performed, resulting favorably to both mother and child.

Respecting my own medical experience during the past year I have nothing of any interest to report, outside of two cases of poisoning from the ingestion of the bark, or rather the fibrous layer between the bark and the wood of the Robinia pseudo-acacia, or the common locust tree. Poisoning from this source being somewhat rare, I state briefly the symptoms and treatment. This tree is well known and indigenous, and its remedial properties, if it can be said to possess any, are found in the bark of the root, which portion, if taken in small doses, is said to be tonic, and in larger doses purgative and emetic. Three cases of poisoning in children who had eaten of the root by mistake have been recorded; they recovered, but neither antidote nor any treatment following their recovery were ever reported. The two cases, above mentioned, that came under my observation occurred in two little boys, aged respectively five and six years. It was my good fortune to see them early after the eating of this inner bark, which they had mistaken for slippery-elm bark, as they said. The symptoms were precisely the same in both; however, the recovery in the one aged five years was more rapid, due, I think, to a more robust constitution, and a less absorption of the

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poisonous material. When the toxic effects of the unknown alkaloid, secreted in this bark, were becoming evident and visible, its progress was noticed by the rapid and extensive dilatation of both pupils of the eyes, as in belladonna poisoning, pallor of the skin, extreme relaxation, and a sickness at the stomach. This was soon followed by free and copious emesis, quickly ejecting entirely the contents of the stomach; after which occurred a small interval, marked with great prostration, with a tendency to yawn and stretch out the limbs. Then came another attack of violent vomiting, in fact, the most uncontrollable emesis I ever witnessed, accompanied at the same time with involuntary and bloody dejections. In spite of all treatment, internally and externally, the emesis continued for about four hours, when collapse suddenly resulted, followed by all its ghastly forms of extreme prostration, ashy pallor of the skin, bloodless lips, pinched and shrunken features, and very feeble respiration and circulation, with no pulse discernible at the wrist. I then commenced on small doses of brandy, milk, and crushed ice, giving them separately and cautiously. This was repeated frequently, and retained until positive symptoms of reaction made its appearance. The child began to improve rapidly, but not until eight hours after that frightful collapse had set in did I consider my little patient fully reacted and out of danger. The stimulating plan that I adopted, to counteract the symptoms that arose in these two cases, I firmly believe to be the proper one. Both little patients made a good recovery.

Very respectfully,

J. E. GILBERT, *Recording Secretary.*

GETTYSBURG, May 18, 1880.

Dr. R. B. ELDERDICE, of McKnightstown, reports as follows:—

During the year 1879 there has been very little of interest to report in my practice. My record and case book shows three deaths during the year.

1 female, aged 1 year, cholera infantum.
1 " " 82 years, peritonitis.
1 male " 80 " dropsy and debility.

Number of births thirty-five. Presentations: thirty-four head, one footling; in one case, the head, a hand, and the funis all presented at once; the cord was pushed up, and head and hand left alone; the expulsion of head forced hand up Funis coiled around neck in seven cases; in one twice, and in one three times around; in this case it was divided before birth of body. Stillborn two; one a twin at sixth month of gestation, and one in forceps delivery in a

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case of contracted pelvis. Forceps used in three cases; mothers all made a good recovery. In the case of twins born at sixth month the labor was caused by excess of liquor amnii, which, at a low estimate, was at least four gallons. The first one was born footling with cord around neck, died in about ten minutes after birth; the second was head presentation and stillborn; both males. In one case, the infant had a large spina bifida, an umbilical rupture, an imperforate anus, and two boils on its buttock at birth; it lived but a few days.

Scattered cases of diphtheria and scarlet fever, mostly among the mountains, occurred at irregular intervals, the cases all of mild form of disease; during the fall months some bilious fever, and during the early winter some typhoid, confined to a few families in one neighborhood. In November one of my typhoid cases, when appetite entirely failed and exhaustion was rapidly coming on, was supported for over two weeks by rectal alimentation, in the manner suggested by Dr. J. W. C. O'Neal, of Gettysburg, in his article on "Rectal Alimentation and Medication" (see *Trans. Med. Soc. State Pa.*, 1879, p. 739). Dr. O'Neal saw this case with me in the earlier period of the disease, and suggested the rectal alimentation as above indicated. In June I attended the worst case of scarlatina that it was ever my good fortune to see recover. Milk, eggs, whiskey, and beef essence were freely and regularly given per rectum, with tr. ferri chlor., quinia, and carb. ammon. in large doses by the mouth. The local treatment recommended by Dr. D. W. Bland, of Pottsville, for diphtheria, was used with excellent effect; the fetor and ulceration of the throat almost entirely disappearing after a few applications. I fully endorse all the Dr. says of it, and rely greatly on its use in diphtheria and scarlatina. The formula is—

		Grams.
℞.	Acid. salicylic. ʒj	4
	Sodæ hyposulph. ʒij	8
	Acid. carbol. ʒj	4
	Glycerin. f℥j	37

M. Four to eight grams (ʒj to ʒij) to half gill water, applied by spray to throat every six or eight hours (see *Trans. Med. Soc. State Pa.*, 1878, p. 418).

On 16th May was called to see a case of gunshot wound of both legs. While the muzzle of an old army musket, heavily charged with buckshot, was not over a foot distant from the body, it was accidentally discharged, the entire charge entering the right leg just above the knee, passing diagonally upward and inward, and severely lacerating the rectus, vastus internus, and other muscles. The load then, scattering somewhat, penetrated the left thigh and passed clear through the fleshy portion—some of the shot being cut out on the

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opposite side. Fortunately neither femoral artery was injured, though both had a narrow escape. Under dressings of carbolic acid in solution, with occasional application of a solution of permanganate of potassa, the wounds healed rapidly, my last visit being made 8th June, when the case was well enough to complete the treatment alone.

In November I saw, in consultation, an interesting and troublesome case of dislocation of head of femur on dorsum ilii, which was reduced ten days after the accident, a report of which will, I presume, be handed in by the attending physician.

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REPORT OF THE ALLEGHENY COUNTY MEDICAL SOCIETY.

JAMES KING, M.D., 1816-1880.

DIED, at Pittsburg, March 11, 1880, of apoplexy, JAMES KING, M.D., in the 64th year of his age.

Dr. King being, at the time of his death, President of the Allegheny County Medical Society, a special meeting of that body was called on the afternoon of March 11th by the Vice-president, Dr. J. B. Murdock, to take suitable action on the death of one of its honored members.

After appropriate remarks by the Vice-president and other members of the Society, Dr. R. B. Mowry, chairman of the committee appointed for the purpose, offered the following resolutions, with a suitable preamble, which were adopted:—

"*Resolved*, That this Society has sustained a very serious loss in the death of its President, Dr. James King.

"*Resolved*, That the medical profession has been deprived of one of its greatest ornaments, of one who greatly advanced its interests and who had ever its welfare at heart; and that the community has lost a most valuable medical adviser.

"*Resolved*, That a committee be appointed to report a sketch of the life of Dr. James King at some future meeting.

"*Resolved*, That we most profoundly sympathize with the wife and family of our deceased brother in their sad bereavement, and that a copy of our proceedings be sent to them."

James King was born in the village of Bedford, Pa., on the 18th of June, 1816. He received his secular education in the "Bedford Classical Academy," and commenced the study of medicine in the office of Dr. B. W. Dudley, of Lexington, Ky. In March, 1838, he graduated from the Medical Department of the University of Pennsylvania, and after a few years practice in Hollidaysburg, removed to Washington, Pa., where he resided until 1850. During part of the time of his residence in Washington he filled the chair of Anatomy, Physiology, and Hygiene in the Washington and Jefferson College of that place.

In 1850 he settled in Pittsburg. At the outbreak of the civil war he entered the United States Army as surgeon, and shortly after was appointed Medical Director of the Pennsylvania Reserve Corps. In August, 1861, he resigned that appointment to become Surgeon-General to the State, holding the latter place until 1864, when he returned to Pittsburg. Two years later (in 1866) the State Medical Society elected him its President, at the annual meeting then

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held in the city of Wilkesbarre, and he continued in active and successful practice up to the very day of his death.

Dr. King enjoyed in a remarkable degree the respect and confidence of his professional brethren, and the community in which he lived and practised, bear loving testimony to his private and professional worth.

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REPORT OF THE BLAIR COUNTY MEDICAL SOCIETY.

Our Society has held, as usual, four regular sessions during the past year, and added to her number some eight of our local practitioners, and lost one by death.

The general health of the county has been rather above than below the average, both in reference to the number of cases of sickness and number of deaths.

Reports have been received from Drs. Fay and Ross as follows:—

Surgical Notes.—Out of a number of injuries incurred on the railroad and in the shops, we mention a few that have happened in the last five years.

C. McM. C., a young single man, lost both of his feet, requiring amputation in the lower third of the leg. He made a good recovery, and can walk with his artificial limbs and a cane.

J. K., a young single man, had one leg amputated in lower third, and the other foot at the intertarsal articulation. Made a good recovery, and walks with a shoe stuffed in front, an artificial limb, and a cane.

T. A., a young single man, had right leg amputated at knee-joint. Died three weeks after of pyæmia and exhaustive abscesses of thigh and sacrum.

I., a little girl, seven years old, left thigh amputated at lower third. Made a rapid recovery.

Two boys, each about 15 years, had an amputation at knee-joint. Both made a good recovery. One was slow on account of extensive sloughing, from the tourniquet being tightened and left on some eighteen hours, by the mismanagement of the nurse.

C. G., a young single man, had his right arm amputated at the shoulder-joint. The integument was so destroyed that the skin did not more than half cover the raw surface after the operation, and part of that sloughed off, being damaged by the accident. He had a protracted but excellent recovery. The skin made very slow progress in covering the wound, but his general health was pretty good, and he preferred to wait on nature to enduring skin grafting.

We had four or five amputations of the humerus, two in the upper third. All were healthy subjects, this side of life's meridian, and recovered in good time.

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H. T., aged 21, had his right hand terribly bruised and lacerated in attempting to make a coupling in the railroad yard at Harrisburg. The metacarpal bone of little finger was fractured. In the effort to save the whole hand, the little finger sloughed off, and the integument more than half way to the carpus, requiring the bone to be snipped off. Pyæmia was ushered in with a chill, and fever followed, with a temperature of 105 degrees; pulse 130. Suppuration extended up the arm almost to the elbow-joint; an abscess at the left ankle-joint and around the patella and along the quadriceps tendon of the right thigh. Treatment: antiseptic dressings, opiates, and sulpho-carbolate of quinia. Recovered.

In obstetrics we had two fatal cases of puerperal eclampsia. One a primipara æt. 18; bowels constipated almost a week; urinary secretion very scanty for about two weeks; general œdema (anasarca?) for two or three days previous to confinement; would not bleed when median basilic was opened; anæsthesia; delivery with forceps when four hours in labor; child living; gave ol. ricini and ol. tiglii till they produced free catharsis; convulsions continued every half hour; died in thirty hours after delivery.

The other, a second confinement, eighth month gestation. Convulsions twice an hour, when not arrested by an anæsthetic. Rigidity of the os uteri prevented delivery until an hour before death; child dead; labor lasted nine hours.

Our treatment of wounds is warm-water dressing, flaxseed poultices, as few sutures as possible. Alcohol and carbolic acid for sloughing and fetid discharges.

I have myself had several very interesting cases in surgery, one a dislocation of the left humerus with fracture of the anatomical neck of the same bone. Reduced and replaced fragments, and recovery complete. A very bad case of fracture of the lower extremity of the radius into the wrist-joint, with dislocation of the ulna, treated after the reduction by a combination of the pad recommended by Prof. Moore, of Rochester, N. Y., and a splint on front of arm only. Two cases of extensive comminution of both bones of the leg, with open flesh wounds. Treated by sealing up, and prompt recovery without secondary symptoms.

In obstetrics, a case of placenta prævia, in which I detached the one-half of the placenta, which was completely over the os, and delivered the child promptly, saving the mother, and would have saved the child also, except for a profuse hemorrhage, which occurred about three weeks before, as it was born living, but died in a few minutes; also a case of puerperal convulsions, the result

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of uræmic poisoning, before, during, and after labor, but which resulted in saving mother and child.

Dr. G. W. SMITH, of Hollidaysburg, reports as follows:—

Treatment of Affections of the Kidney.—Within the last year I have treated several interesting cases of disease of the kidneys.

1. Rev. Dr. C., æt. 72, who has had kidney troubles for two or more years, which was recognized as granular disorganization, albuminuria, or Bright's disease. In the chronic form. nothing more than usual was recognized, but being away from his own house and sleeping in a cold bed, the acute symptoms were developed. Pain in the lung, a general soreness and stiffness of the muscles, headache, chilliness, and scanty urine were complained of. Puffing of his face, and especially of his eyelids and feet, were the objective symptoms. Pulse 90 to 100; temperature 100° to 110°. Almost complete anorexia, and aversion to milk especially. The urine showed an unusual quantity of albumen, and not a trace of uric acid could be detected. The patient was dull and drowsy already. The case progressed from bad to worse for eight days, when coma set in, and he died in the next twenty-four hours. There was not any intercurrent affection except a little irritation of his right lung. He became very much emaciated.

2. Mrs. H., æt. 56, enjoyed good health usually until suddenly pains occurred in loins and head. Found her, on first call, dull and sleepy; face turgid and swollen; feet puffy; short of breath, and nausea at stomach. Pulse 80; temperature 102°. Urine coagulated so as to be thick, with heat or nitric acid. A trace of uric acid and sugar. Elaterium relieved her for a few hours, but she relapsed with coma, and died the fourth day.

3. Mrs. K. Called to see her for "dropsy." Found her very much swollen in legs and feet, face almost black and swollen, hands puffy. Pulse 105; temperature 99°. Bowels lax and feces light colored. Urine scanty and full of albumen; no uric acid to be detected, no sugar. Vomiting frequently. A persevering use of elaterium and diuretics with counter-irritants and the hot bath has proved successful, and she is now enjoying good health.

4. David S., æt. 19. First symptoms of general rheumatism, but also found his whole body and limbs swollen. Headache, nausea and vomiting, and pain in loins, the prominent objective symptoms complained of. Pulse 116; temperature 102½°. No urine voided for thirty-six hours, none in bladder. Bowels costive. Got ℥j of urine and it coagulated like the white of an egg soft-boiled.

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A liberal use of calomel and elaterium with diuretics proved successful. Three other cases of like interest recorded.

During the past winter we have not had any unusual epidemics. Scarlatina and diphtheria have prevailed in a mild form, with but few deaths. Pneumonitis and bronchitis have been quite prevalent, but without the usual number of deaths from them. Rheumatism has been prevalent and severe during the winter in our bailiwick.

W. M. FINDLEY,
Chairman.

THOMAS FLEMING FINDLEY, M.D., 1851–1879.

THOMAS FLEMING FINDLEY, M.D., whose death we mourn, was born at Frankstown, Blair County, Pa., September 25, 1851. He received a common and high school education. In 1858 was brought to Altoona, Pa., where in 1868 he entered as an apprentice in the car building department of the Pennsylvania Railroad, this being thought best for him by his friends. But after serving his time of indenture fully, he chose for his life-work the practice of medicine, on the study of which he entered in 1873, having for his preceptor his brother, William M. Findley, M.D., then and now engaged actively in practice in the city of Altoona. Here the study of his profession was prosecuted with energy and even with enthusiasm, and his progress was correspondingly gratifying. His name is enrolled among the graduates of the Medical Department of the University of Pennsylvania, in the class of 1875. Very soon after the taking of his degree in medicine, he is found associated in the practice of his chosen profession with his brother, William M. Findley, M.D., in Altoona. Soon thereafter, in June 1875, he had an attack of pneumonia, from which he never seemed to rally completely, although at times he seemed really well. But these apparent improvements were but lulls and resting-places in the progress of the sure moving destroyer, phthisis, which by the summer of 1879, in September, had done its work, and he was summoned hence.

His was a very active mind, his memory was retentive. His reasoning powers were far above the average, which fact was displayed in his ability as a diagnostician.

His professional career, though short and obstructed by many obstacles, chiefly feebleness of health, gave promise of great usefulness. His age was twenty-eight.

He died as he had lived, a Christian. Very soon after he entered into the profession he testified his appreciation of associative effort by seeking and securing admission to the Blair County Medical Society, of which he continued to be an active and honored member until removed by death. On several occasions he was appointed to represent it in the annual meetings of the larger medical organizations The duties of these appointments were discharged to the satisfaction of the Society and with credit to himself.

CRAWFORD IRWIN,
G. W. SMITH,
ROWAN CLARKE,
Committee.

HOLLIDAYSBURG, May 11, 1880.

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REPORT OF THE CENTRE COUNTY MEDICAL SOCIETY.

THE first County Medical Society of Centre was organized in 1847. Dr. William Irvin Wilson was President. The Vice-presidents were Dr. Benjamin Jones Berry and Dr. Samuel Strohecker. The Secretary was Dr. Geo. L. Potter, and Treasurer Dr. J. M. McCoy. The records of this Society have been lost. Its life was of short duration.

April 4, 1876, the present Medical Society of Centre County was organized. The late Dr. R. V. Wilson, of Clearfield, was mainly instrumental in awakening an interest in the minds of the physicians of Centre County to the importance of an organization.

The physicians of Centre County met in the reading-room of the Bash House, Bellefonte. Dr. Thomas R. Hayes, of Bellefonte, was chosen temporary President, Dr. J. Y. Dale, of Lemont, Secretary. A constitution was adopted, and the following officers elected for the ensuing year: President, Dr. William Irvin Wilson; Vice-presidents, Drs. D. T. Musser and T. B. Potter; Secretary, Dr. J. Y. Dale; Treasurer, Dr. Geo. F. Harris; Censors, Drs. A. Hibler, T. R. Hayes and John F. Woods. Since the organization of the Society, the meetings have been held regularly in Bellefonte four times a year. Important papers have been prepared and read before the Society by the following members: "The Treatment of Typhoid Fever," by Dr. J. Y. Dale; "Hypodermic Medication," by Dr. Geo. F. Harris; "Bilious Dysentery," by Dr. Hibler; "Lachrymal Obstruction," by Dr. Thos. R. Hayes; "Acute Pneumonia," by Dr. John F. Woods; "Bronchitis in Children," by Dr. J. P. Glenn; "The Physician, his Duties and Responsibilities," by Dr. D. T. Musser; "Erysipelas," by Dr. F. H. Vanvalzah; "Antagonism of Remedies," by Dr. J. M. Blair; "The Medical Profession has its peculiar Joys as well as its peculiar Trials," by Dr. J. R. Smith.

Our Society organized with fifteen members; at the present time we have twenty-one members in good and regular standing. The majority of these take an active interest in the work of the Society. The advantages of the Society have been recognized by all. In the first place, we have been brought together and have become ac-

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quainted, and in consequence are more friendly. A desire to elevate the standard of the practice of medicine has been cultivated. The preparation of papers and the discussion of medical topics have quickened and stimulated and renewed zeal and taste in professional matters. We are more willing to co-operate in the better work of the State Medical Society. One year ago we elected the "Examining Committee," consisting of Drs. Hayes, Harris, and Hibler. This new departure, if heartily entered into by the different County Societies, will furnish better students for our medical colleges, and promote the cause of medical education in a large degree.

We have had no epidemics of disease in Centre County during the past year. Here and there fatal cases of diphtheria have occurred, but the disease has been limited to a few families, and has not spread to any extent. A most interesting and instructive case of diphtheria occurred in Bellefonte last December, in the person of Dr. Geo. A. Fairland, one of our prominent physicians, illustrating the *local origin* of the disease and the *primary nasal form* of it. He had been attending a malignant case of diphtheria, which proved fatal, and at the last visit the child coughed in his face, and some of the expectoration lodged on the edge of the mucous membrane of his nose. The next day the membrane began to form, and in a few days the nasal cavity was well covered, and, on blowing his nose strongly, a cast of the cavity was expelled. During this stage of the disease the doctor was out and in, not being confined to his room. The disease gradually extended to the pharynx, and completely enveloped the entire pharynx and the soft and hard palate. Great prostration and alarming symptoms supervened, and his life was despaired of. The skilful treatment of his physicians and his hearty co-operation saved his life. The diphtheritic paralysis was very marked—paralysis of the velum palati and of the pharyngeal arches—inability to swallow, loss of voice, taste, smell, and, finally, touch.

Dr. JOHN F. WOODS, of Boalsburg reports—

A Case of Punctured Fracture of the Cranium with the Superior Longitudinal Sinus, with Fatal Result.—The subject of this injury was a child twenty months old, and up to the time of the accident had good health; and was nourished exclusively by its mother. An older sister, some four years of age, was amusing herself in puncturing holes with a pronged garden hoe into a solid walk passing through the yard towards the barn, in the midst of their playground. Suddenly, and no doubt unexpectedly to both, the younger child ran under the hoe just as her sister was in the act of striking it to the ground, and received a wound from

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one of the prongs, the sharp point entering the skull on the median line just anterior to what was at one time the posterior fontanelle, and through the sagittal suture into the superior longitudinal sinus. There were no other members of the family near the little girls at the time, or witnessed what had happened, but immediately after the accident a copious flow of blood ensued, and the shrieks of the child soon brought assistance. The hemorrhage was arrested spontaneously from the formation of a clot in the wound, which was not disturbed until some time afterwards. The day following I called to see another patient I was attending in the same family, and was shown this case. I found her on her feet, bright and playful, enjoying herself as she did when well. There had been no further hemorrhage up to that time, and, as the wound was well covered over with hardened blood and matted hair, I concluded not to disturb it then. A superficial examination of the injury, however, was made without any probing, and I supposed at the time that the hemorrhage came from a divided venous plexus or a division of one of the larger branches of either the temporal or occipital veins lying exterior to the skull in that situation. A day or two afterwards the hardened blood protecting the wound had softened, and the clot disappeared, and, when the patient was unduly exercising herself, another small hemorrhage occurred. I instructed her mother to thoroughly cleanse the parts around the wound for inspection the next day. This was done, and, as far as an ocular examination could determine, nothing could be seen but a simple puncture through the scalp.

In passing a probe into the puncture from above downward and from behind forward the distance of half an inch, a temporary clot was disturbed and away spurted the blood over the floor. It was easily stopped by slight digital pressure. The soft parts within the wound from time and tumefaction had so thoroughly covered and smoothed over the edges of the puncture through the skull that a probe would not reveal the fact whether there really was a breach in the bony tissue or not, but a few punctures around the orifice with a sharp pointed bistoury soon cleared up that doubt. In view of the fact that the edges of the scalp wound were not at all separated, and that the distance of a half inch intervened between the exterior of the wound and the sinus, I thought it worthy an effort to keep the patient in safety from hemorrhage by means of moderate compression with bandage and lint saturated with dilute Monsell's solution, hoping that in time the interior of the wound would bridge over and thus cut off communication with the outside. The scalp wound would then be a very simple affair to manage; but despite

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the efforts employed to carry out this plan, for several reasons it failed. By this time the little patient had become irritable and peevish, and it was with the greatest difficulty that any applications could be kept on the head; she seemed to be in constant distress whilst they were on, and was always successful in tearing them off, when not carefully watched.

Then, again, the child did a wonderful amount of crying when well, and now of course there was no abatement in that direction, and it is well known to physicians that in young children the spasmodic movements of respiration in crying produce turgescence and engorgement of the large veins during expiration, and in a case like the one now under consideration it would be highly necessary that the cerebral venous circulation should remain passive and undisturbed. During a fit of crying in this case the continued expiratory act and consequent engorgement of the superior longitudinal sinus would force the blood up the wound and not only keep it from uniting by either first or second intention if it was disposed to, but force out the clot, push the dressings aside, and result in a dangeous hemorrhage. I then freshened up the edges of the wound and drew them together with the twisted suture, which did well in preventing hemorrhage, but failed to brighten the prospects for any good within, or to cause union externally.

The same pressure of blood from the sinus up the wound interfered with any permanently good results, and prevented any possible union. The sutures were removed in forty-eight hours without any gaping of the wound, and also without any adhesion of the pared surfaces.

The next resort was to draw the edges closely together with a narrow adhesive strip, and cover the parts effectually over with collodion, leaving a small aperture directly over the puncture for drainage. This application effectually blocked any tendency to hemorrhage, and thus placed the patient in comparative safety as far as that particular danger was concerned. Even that dressing would loosen in a few days and a reapplication would become necessary. During this time the general health had not been neglected; from losses of blood a condition of hydræmia was present, requiring iron and quinia and good nourishment. After the first week from the time of the accident symptoms of cerebral inflammation began to develop. There were thirst and restlessness, and a greater degree of heat of the head. A short dry cough came on with attacks of nausea and vomiting. The pulse became accelerated, and the pupils contracted; subsequently violent and long-continued rigors occurred once or twice in twenty-four hours. The case then lapsed

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into a state of semi-consciousness, with bending of the head and neck backwards, attended with paroxysms of so-called "cerebral breathing." Then one of the eyeballs bulged considerably, and the lids of both eyes became very much swollen and œdematous, though not inflamed. Complete coma followed with convulsions, paralysis, and death. It will be seen from the foregoing account that the treatment of this special form of injury is anything but satisfactory, and the prognosis very unpromising. In the first place, punctures of the cranium in any form or locality piercing both tables and injuring the dura mater are *dangerous*, usually resulting fatally sooner or later from extension of inflammation to neighboring parts, sometimes leading to abscess between the skull and dura mater, or in the brain substance itself. Another risk in this form of injury is the establishment of a permanent tract passing from the sinus to the exterior, which of course would be deleterious to both health and life. I take it that a fracture of that kind, communicating as it does externally through the soft parts and also through a centre opening into the sinus, would manifest a very slight disposition, if any, to bridge over at all, and in case it should, one would think that the mode of repair could proceed in no other way than by that of granulation. Usually, complicated fractures are tedious in repairing, and when there is an open wound leading to the fractured bone, the process of repair is by granulation, the granulations arising from the ends of the fragments ultimately connecting the link between them.

This fracture was a compound complicated punctured one, and if its repair should necessarily have to be effected by granulation right in connection with an open sinus the proceeding thus would insure the passage of pus globules directly into the circulation, and in all probability, be followed by blood-poisoning and pyæmic abscess, and whether the opening externally would remain open or be "hermetically sealed," the same results would be most certain to follow. I may also mention that the periosteum—as is always the case in displacement of the fragments of bone or portions of the bony tissue—was more or less injured, and as an evidence that nature was acting there the same as in contusions and diseases of the bones in other localities, I will offer the fact that small teats or tubercles showed themselves pointing out at the sides of the wound, secreting a small amount of thin pus, showing that, as we all know, in the process of repair of bones there is a certain amount of diseased tissue to get rid of. The first question that would present itself to the mind of the surgeon in treating a case of this kind would be whether to close the wound in the first place or allow it to remain-

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open. In an ordinary case of puncture of the cranium, no doubt the profession would be somewhat divided on this very point. Whilst one would advise not to close the wound, another would just as emphatically advise to close it by all means. Laying aside the question of hemorrhage I think there would not be so much objection to having the wound remain open for common drainage, but in this case, attended as it was with alarming hemorrhages, independent of any preconceived theory on the subject, closure was a positive necessity.

In offering the report of this case I express only my own views in regard to the theory and treatment of it. I have seen no similar cases reported or on record, and they are no doubt rare. The text books lay down no rules or express no opinions covering a case of this kind, and one is left to treat it as best he can on general principles.

Dr. THOMAS R. HAYES reports the following:—

Cancer of the Liver.—Was called to see Mrs. Eliza Rider, of Milesburg, Feb. 10, 1880, three days before her death. She was in her 55th year, and until two years ago had enjoyed good health. On examination, found a tumor, very hard and irregular, extending down from the liver as far as the umbilicus. She was jaundiced, and had been for three weeks. For two years had suffered from gastric and intestinal disturbances of increasing severity. Three days before her death, for the first time, had passed from her bowels a little blood; two days before her death had severe hemorrhages from the stomach and bowels.

A post-mortem examination revealed a tumor weighing one pound, hard, dense, and grating under the knife. Under the microscope the true characteristic cancer cells were readily recognized.

Fibroid Tumor of Testicle.—J. H., aged 40, forgeman by occupation, for three years has noticed a steady enlargement of the left testicle. On April 10, 1880, he presented himself at my office with the request that some relief be afforded him, as he was no longer able to work. Recommended excision, and, on the 13th April, assisted by Drs. A. Hibler, of Bellefonte, and J. C. Thompson, of Fillmore, performed the operation. Four arteries were tied, and a stout ligature was passed through the spermatic cord previous to cutting it off with the knife. After the operation the patient was given ¼ gr. sulph. morphia. The wound was dressed continually with a weak solution of carbolic acid in water. Tinct. iron in full doses was given for two weeks. The patient made a rapid and complete recovery. To-day, May 18th, the patient has resumed work.

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Strabismus of three and a half Lines.—I. P. McCreary, student, age 22, from childhood had strabismus convergent to left eye. Vision R. E. $\frac{20}{30} + \frac{1}{60} = \frac{20}{20}$ L. E. $\frac{20}{100} + \frac{1}{60} = \frac{20}{50}$. April 5th. Made a very full operation on the left eye; expecting to make a small operation subsequently on the right eye Two days after the operation put on $+ \frac{1}{60}$ spectacles, to be worn constantly. Have seen the patient several times since, and the result seems to be perfect; no other operation required.

At the regular meeting of the Centre County Medical Society, held in Bellefonte, April 28, 1880, Dr. Thomas R. Hayes reported the death of Dr. PETER D. NEFF, of Centre Hall, and moved that a committee of three be appointed to draft suitable resolutions, and also prepare a biographical sketch of our deceased brother, to be published in the *Transactions of the State Medical Society.* The committee prepared the following report, which, on motion, was received:—

Whereas, Death has again suddenly visited our Society and taken away one of the oldest of our members;

Resolved, That, while we bow in humble submission to this dispensation of Divine Will in removing from our midst our late associate in medicine, and an honored member of this Society, we feel that his death is sincerely mourned by the entire community, to whom he had devoted a long and active life of usefulness.

Resolved, That we offer the members of his beloved family our sympathy and condolence in this great sorrow and affliction.

Resolved, That the secretary forward a copy of these proceedings to the family of the deceased, and also to the county papers for publication.

Signed, J. D. SMITH, M.D.,
F. H. VANVALZAH, M.D.,
W. A. JACOBS, M.D.

PETER D. NEFF, M.D., 1816–1880.

BY WM. A. JACOBS, M.D.

In the death of Dr. Neff, of Centre Hall, the medical profession of Centre County has lost one of its oldest members. Dr. Neff was born near Cedar Spring, Centre County, Nov. 23, 1816. When eleven years of age his father quit the trade of blacksmith and began farming a tract of land, which was then almost a dense forest. On this farm he labored with his father for ten years, and the wilder-

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ness was converted into beautiful and productive fields. When he reached the age of twenty-one years he apprenticed himself to a carpenter, with whom he remained two years. But the aspiring young man was ambitious to enter the ranks of the profession of medicine, and to this end exerted all his energies. For two years he taught school, and occupied all his spare time in reading medicine under the instruction of Dr. Wm. Irvin Wilson, then a celebrated physician of Penn's Valley, and still living at the advanced age of eighty-eight, surviving his student, but too feeble to practise, having retired a number of years ago. Peter D. Neff graduated with honor at the Jefferson Medical College in the spring of 1848. He then began the practice of medicine in Aaronsburg, Centre County, and, after a few years, removed to Centre Hall, and continued in active practice in that place to the very day and hour of his death. He established a lucrative practice, and was well known throughout the county as an honest and upright physician, always ready and prompt to respond to the numerous calls of the sick and afflicted. He was kind and sympathetic, and devotedly attached to his profession. Within the last few years of his life he had met with a number of serious accidents. Two years ago he was thrown violently from his wagon and severely bruised; he had hardly recovered from this accident when he was thrown from his sulky, and sustained a fracture of both bones of the forearm. The past winter he complained a good deal of oppression and pain about his chest, and believed he had organic disease of the heart, and anticipated trouble on account of it.

On the morning of the 7th of April, 1880, he was called to see a patient in confinement. It was one of those dreadful cases of convulsions, and aroused the strong sympathy and anxiety of the kind-hearted doctor. Late in the afternoon he wrote a note to his former partner, Dr. Wm. A. Jacobs, to come and assist him. The doctor promptly responded, but, on reaching the house, was terribly shocked to learn that Dr. Neff had just died at the bedside of his patient. He had sunk to the floor while administering stimulants to the convulsed and dying patient. The patient was unconscious at the time of the doctor's death, and died the next morning. The doctor and the patient were buried the same day and in the same graveyard. He died in the harness, and the entire community mourned over his sudden and unexpected death. A wife and only daughter were stricken with grief and sorrow. A large concourse of friends and neighbors followed him to his last resting place, and testified to the great loss the community had met with.

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REPORT OF THE CHESTER COUNTY MEDICAL SOCIETY.

ISAAC THOMAS, M.D., 1797-1879.

BY JACOB PRICE, M.D.

SINCE our meeting a year ago this Society has had to part with one more of the few remaining men who participated in its organization, and one who all through its existence was a most steadfast and useful member.

Until it became a physical impossibility to reach the place of meeting it was seldom that we were without the cordial greeting, the active sympathy, and wise counsel of our venerable friend and member, Dr. ISAAC THOMAS, of West Chester. None of you I am sure, unless it is some very young member, will ever fail to recall with enthusiasm the example of this most earnest worker in our ranks, who, not even when age "sat glassy in the sunken eye" allowed his zeal to slacken in any movement that was to advance the science of the great profession to which he had devoted his life, or in any way extend its power to relieve suffering humanity.

Isaac Thomas was born on the 16th of September, 1797, in Willistown Township, Chester County, Pa. His parents, Mordecai and Lydia (Hoopes) Thomas were members of the Society of Friends. Under the influence of this Society he received his religious training and principles, with which he became so thoroughly imbued that they remained the governing ones of his whole life, although in 1824, by his marriage with a lady not a member, he lost his right in that Society.

His father was an industrious farmer, and Isaac being the eldest of the children, necessarily took a leading part in the labor of the farm, thereby thoroughly establishing in the boy those habits of industry and perseverance that were to prove the distinguishing traits in the long and useful life of the man. It was early found that he could be safely trusted with responsibilities beyond his years, and in the absence or disability of his father he frequently took the produce of the farm to Philadelphia and disposed of it in the market there. This service exposed him to great temptations, but he passed them all unscathed. A fondness for the use of tools and unusual mechanical skill were shown at an early age These he cultivated so far as to prove of great service to him in surgery, a department of practice in which he excelled. Although well occupied by the farm work, he found time for study; but until near manhood he had no facilities beyond those afforded by the common schools of the neighborhood. His nineteenth year he spent at the school of Joshua Hoopes in Merion, Montgomery County, Pa, under whose

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intelligent direction he made excellent progress in mathematics, and in natural science. He afterwards attended a course in the West Chester Academy, studying in addition to the usual English branches, Latin and French.

At the age of twenty he began the study of medicine in the office of Professor Chapman of the University of Pennsylvania. One of his classmates and an intimate friend, Dr. John L. Atlee, still in active practice in Lancaster, Pa., thus refers to their student life together. "Soon after arriving in Philadelphia for my last course in 1819–20, I met Isaac Thomas, and, as we were candidates for graduation, we agreed to form a quiz club of six members, so that each could take up a professorship and quiz his fellows upon his special branch. Ours consisted of Isaac Thomas, Benjamin Jones Pennock, Richard Dalton, Samuel P. Reese, and myself, of Pennsylvania, and Garwin L. Corbin, of Virginia. We met twice a week and examined each other on the lectures of the three preceding days, and often recapitulated on Sunday afternoons. We worked very hard, and all succeeded in getting our diplomas in the spring of 1820. These frequent meetings led to very great intimacy, and I formed a strong attachment to Dr. Thomas. He was a most diligent student, thoroughly honest and conscientious, and very fond of his profession. Like myself and Dalton, he was in want of the '*Res Angusti Docei*,' and everything in the future depended upon our success.

"The attachment between Dr. Thomas and myself continued to the end of his life; we always met with pleasure and separated with regret."

The industry and care as a student, forcibly described by Dr. Atlee, gained for young Thomas the confidence and approval of his preceptor, and of the whole faculty of the University. The student life of the youth was but an earnest of that which was to follow, making at every step a career of usefulness and honor such as is the lot of few to attain.

On the sixth of April, 1820, he obtained the degree of Doctor of Medicine. His thesis prepared for the occasion was upon "Phlegmasia Dolens."

About the first of May the same year he began practice in Delaware County, where he remained four months, when at the solicitation of some of the citizens of West Chester he removed to that place, with whose interests he was identified for a period of nearly sixty years. While it is mainly with his life work as a practitioner of medicine that we have to do in this brief memoir, yet it is proper to glance in passing at the various enterprises calculated to add to the happiness and welfare of his race which he inaugurated or assisted with his characteristic energy and perseverance to push forward to a successful result.

On the 26th of January, 1826, Wm. Darlington, M.D , Henry Van Amringe, Abram Marshall, Jr., Jonathan Gause, Isaac Thomas, M.D., John W. Townsend, David Townsend, Thomas S. Bell, Wilmer Worthington, M.D., and Eusebius Townsend, met at the "Turk's Head Hotel" to form a society for the purpose of cultivating a

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knowledge of natural science and especially to collect the material requisite for a complete natural history of Chester County. This was the first meeting to organize "The Chester County Cabinet of Natural Science," of which Dr. Thomas was an active and most useful member until it ceased to exist in 1850. He was the last survivor of the original ten that had participated in its formation.

This association had much to do with the intellectual and scientific development of West Chester and of Chester County. Under its auspices, facts and relics, bearing upon their settlement and history, were gathered and placed in safe keeping. A full collection of the birds of the county was made principally by I. Lacey Darlington, Esq., and under the laborious care of such men as Dr. Wm. Darlington, David Townsend, Joshua Hoopes, Dr. E. Michener, and others, a collection and classification of the plants and woods was made and preserved, such as has not been rivalled in this country, and which work resulted in the "Flora Cestrica" of Dr. Darlington, and acknowledged to be the best botanical work extant. The collection of minerals, of insects, of fresh-water shells, and of Indian relics in the museum of the society was most creditable, and which under the persevering industry of Wm. W. Jefferis, Dr. W. D. Hartman, and Philip P. Sharples, have been extended until in completeness in their respective departments they are scarcely excelled.

In 1835 the "Cabinet" organized a course of public lectures. Of these Dr. Thomas gave those on anatomy and physiology, which he repeated in 1837. These lectures were largely attended, and gave great satisfaction.

In 1833 Dr. Thomas was elected a director of the Bank of Chester County, at that time the only one in the county, which position he held for forty years, except during the brief periods which the law requires the place to be vacated. When at last, from advancing age, he retired from the Board, his fellow members parted from him with great regret.

In 1837 he was elected a director of the Chester County Silk Company, which was organized to ascertain the feasibility of profitable silk culture. But the extravagances of the "multicaulus speculation" prevented its success and usefulness, and the enterprise was soon abandoned.

In 1838 Dr. Thomas was elected a member of the Town Council, serving for a period of nine years, during which time water was introduced into the borough. In this great improvement he took a leading part, rendering a service to the public that was of the highest value.

In 1843 he was chosen a director of the West Chester Railroad. At this time the road was in such poor condition that its abandonment was seriously considered. It was heavily mortgaged—the tolls on the State Road were enormous—horse-power was used—the freight was in the hands of private transporters, and the receipts had fallen so low that the road was practically insolvent. The stock was offered at 5 cents per share without finding a bid. As there were only 2200 shares, this was valuing the road at $110. At this juncture enough new members were elected to effect a thorough change in the management. The fare was reduced from one dollar

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to seventy-five cents, the track was re-laid and steam introduced as far as the junction with the Pennsylvania Railroad. A few years later the T rail was laid and steam used all the way to West Chester. After this its success was complete. Dr. Thomas was in the Board of Directors for many years—was much of the time its President, and perhaps as much as any other person contributed to its unprecedented success.

In 1861 he was chosen a trustee of the West Chester Academy, one of the oldest and most successful educational institutes in the country, and which for many years was the most advanced in its course of studies. He continued in this trust until the academy was merged, about eight years ago, in the State Normal School.

It will be seen by this retrospect that Dr. Thomas was constantly engaged in enterprises outside of his professional work, calculated to advance the culture, the virtue, and the material prosperity of his fellow-citizens. In these he worked with his characteristic energy and skill, yet so quietly and modestly that even his contemporaries were unaware of the extent of his services in their behalf.

On the 3d of March, 1824, Dr. Thomas was married to Ann Charleton Miner, the eldest daughter of Hon. Charles Miner, then editor of the *Village Record*, and also member of Congress from this district. One whose privilege it was to know her intimately, testifies that "she was a woman of superior mind and most estimable character.[1] Her engaging manners and intelligent conversation made her an ornament to society, and by her generous sympathy with every form of affliction, and her open-handed charity to the needy, she won the blessings of those ready to perish. A well-ordered household attested her recognition of the primary duties of a wife, and she dispensed the liberal hospitality to which her husband was inclined, with a most attractive grace and benignity." No man was happier in his marriage than Dr. Thomas, but that happiness was of brief duration. In March, 1832, after a short and painful illness, she died leaving two daughters, who lived a constant solace to their beloved father, and during his last long illness were ever at hand to soothe and comfort.

In 1835 he married Mary H. Brinton, second daughter of George Brinton, Sr., of West Chester, who, after a quiet and happy married life of forty-four years, survived him only one week, leaving a son and two daughters, all of whom lived to throw around the declining years of their parents that halo of happiness that attends the ministration of grateful and dutiful children. In this connection it is but just to refer to his cousin, Miss Sarah Thomas, who after the death of his first wife became a member of his household, and thereupon none ministered more devotedly or successfully to his comfort and welfare.

Dr. Thomas, in locating in West Chester for practice, placed himself in competition with physicians of more than ordinary skill and culture. Dr. Jacob Ehrenzeller was in the zenith of his popularity, and was a man of great natural force of character, and possessed thoroughly the confidence of the people. Dr. Wm. Darling-

[1] Hon. Jos. J. Lewis.

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ton, whose reputation as a scholar and scientist is historical, was well established in practice. Young Thomas was not long in securing the confidence and esteem of these men who were so well qualified to judge of his fitness for the important duties to which he had devoted himself. The care with which he performed his work, the caution which he evinced in reaching his conclusions, his skill in the management of difficult cases, and, above all, his extreme modesty of deportment, proved a sure passport to their favor. They were not slow in calling upon him for assistance, and to relieve themselves of practice that had become burdensome. Business flowed in upon the young physician. He soon gained a leading practice both in the borough and surrounding country for a radius of eight miles. These he held against all competition to the end of his professional life.

In scrutinizing the professional work and life of Dr. Thomas, we are struck with his many strong points of character. His courage was one of the most prominent. He never evaded an issue; he never shirked a responsibility; he did not stop to consider what the world would say, but perceiving his duty he did it regardless of criticism. His honesty of purpose was proverbial. He resorted to no subterfuges. Fidelity to his patients was a ruling principle. Profoundly impressed with the sacredness of human life and health, he passed no case, however humble, carelessly, but rather sought conscientiously to bring to bear for the relief of all who sought his counsel, the poor and the rich alike, the best skill that careful study and examination could develop. His steady faithfulness to his patients is well known to some who now hear me. When many, perhaps most, would have yielded to nature's demands for repose he would be found seeking the bedside of some poor sufferer whose case was pressing heavily upon him.

The amount of physical labor that Dr. Thomas performed in the course of his long life, must have been unexampled. His practice was wide-spread. In the early part of his career the roads were imperfectly constructed; many were mere by-paths; gates had to be opened, bars removed, ditches crossed. I well remember getting from his lips the recital of a day's work, in which, leaving home after breakfast and returning at night, he travelled on horseback over thirty miles, having had to open nineteen gates and fifteen sets of bars. Those who now practise over smooth roads, in easy carriages, and often with a driver, will find it difficult to estimate the labor of those who lived a generation before us.

His conduct in the sick-room was gentle, refined, and sympathetic, which drew his patients to him with an unusual warmth of affection. By hundreds to whom in their suffering he has ministered with tenderness, his memory is cherished with gratitude and reverence.

His zeal in the study and practice of his profession did not wane with his advancing years. In early life, while cautious in regard to new views or innovations in practice, he took hold readily of advances in the science of medicine, and also of the newer and more concentrated remedies. He was among the first to begin the use of quinia, morphia, etc. In later years his conservatism did not prevent him from adopting the advanced and more definite therapeuti-

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cal views that are the result of modern investigation of the physiological action of remedies.

His method and care in the examination of patients, his caution in reaching his conclusions, his acuteness of observation, and his penetration, enabled him to excel in diagnosis, that mark of the highest type of the physician. His excellence in this regard was recognized in consultations, and also by the public who reposed the greatest confidence in his judgment. It enabled him, on many occasions, to lift a heavy load of apprehension from the afflicted. One of these, who afterwards became my patient, gave me her experience of this relief in terms of gratitude. She had been suffering for months from a trouble with one of the mammary glands. The character was obscure, and as it had failed to improve under the management of the attending physician, the opinion was formed that the disease was malignant. With this impression strong in her mind, she came to West Chester to seek the counsel of Dr. Thomas. After a very careful examination, he decided that the disease was *not* cancer, but was inflammation of the gland from an injury, and that it was curable. He gave her this opinion in decided language, and removed completely the load of anguish that had almost overwhelmed her. Her gratitude was beyond the power of language to express.

Dr. Thomas in practice was no specialist; he lived before the days of specialism. He was emphatically a general practitioner. If in any department he excelled, it was in surgery and obstetrics. In the former his dexterity in the use of tools, and his mechanical skill gave him great advantages, while in the practice of the latter, his cool and cautious judgment rendered him eminently successful, and his gentleness and refinement endeared him in a remarkable manner to those who in their hour of peril sought his tender care.

Towards his brother practitioners, Dr. Thomas's conduct was in the highest degree honorable—never in any way seeking his own advancement at the expense of the reputation or standing of a competitor. He upheld to the fullest extent the high-toned ethics of the profession. In consultation, while keeping the interests of the patient carefully in view, he was always mindful of the feelings and the reputation of the attending physician. This rendered him popular with other practitioners, and as his judgment and skill were most highly esteemed, his services in consultation were largely sought. Of his kindness and consideration in all his intercourse professionally, I can speak from the most extended experience. Coming into his immediate vicinity whilst he was in full practice, we were necessarily brought much in contact, yet on no occasion did I receive from him any but the most honorable and careful treatment.

His regard for the regular or rational system of practice was most profound. Believing it based upon the truths of science and the carefully ascertained results of experience, and having for its object the welfare of the race, with a platform without censorship, and broad enough for every honest devotee of science to stand upon, he had but little toleration for those who for popularity or emoluments placed themselves without its pale, and sought to attract public attention and favor by advocating new and fanciful systems of

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practice. His conduct in this particular, as in all his course of life, was not the result of prejudice, but rather of earnest and conscientious conviction.

Dr. Thomas was one of the fifteen physicians who, on the 5th of February, 1828, met at the house of Mrs. Ann Mason, in the borough of West Chester, for the purpose of forming a medical society. These physicians were Drs. Wm. Darlington, Samuel McLean, Jacob Sharpless, Isaac Z. Coffman, Bartholomew Fussel, Isaac Pennington, George A. Fairlamb, Wm. Harris, Ezra Michener, Joseph Griffith, John Kennedy, C. W. Parrish, Isaac Thomas, Wilmer Worthington, and J. B. Brinton. Of these, three only survive, viz., Drs. Michener, Brinton, and Coffman. Of this meeting Dr. Thomas was Chairman. A committee was appointed to draft a constitution and by-laws, and at a subsequent meeting on the 7th of June, of the same year, the organization of the CHESTER COUNTY MEDICAL SOCIETY was completed.

This was the first county society organized in Pennsylvania, and from it sprang the State Society. At the meeting of December 1, 1847, on motion of Dr. Wilmer Worthington, the following preamble and resolution were adopted: "Whereas no State Medical Society exists in Pennsylvania, and believing that such an institution would greatly contribute to the advancement of medical knowledge within its bounds: Resolved, that it is expedient to hold a convention at such time and place as may be agreed upon, to effect such a permanent organization as may be deemed best suited to accomplish the object in view." This movement led to the formation of the "Medical Society of the State of Pennsylvania" in the following year, just twenty years after the organization of our County Society. Dr. Thomas was an active member of the State Society, and once its Vice-President. He was also a permanent member of the "American Medical Association." He was in the year of his graduation elected an honorary member of the Phila. Medical Society, the oldest medical organization in the country.

In 1858, Dr. Thomas feeling that the time had come to relinquish the cares and anxieties of his extended practice, and realizing the impossibility of severing his relations with his patients without leaving home, visited Europe in company with his son. They travelled through Great Britain, France, Germany, and Switzerland, and returned in the fall of the same year. Although somewhat improved in health by the journey, he continued to suffer from nervous troubles, induced by the wear of his most laborious professional life, and he shrank from again entering upon its duties. He never after visited patients except in consultation with other physicians. His life after this was spent in the quiet of his own home, surrounded by all the comforts that the love and vigilance of that household, whom he had reared with such tender care, could supply. His was the fitting ending of a life that had been spent in caring for the comfort and welfare of others. No attention was wanting that the thought of loving wife or devoted children could suggest to smooth his pathway. The kind offices of friends whom he had so long and so faithfully served were freely bestowed.

Not without suffering, yet with patience and a sweetly serene

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spirit, he slowly approached the end, and on the evening of the 16th of May, 1879, passed quietly to his final rest.

Gentlemen, the labor of love to which your partiality called me, is finished. That it has been done imperfectly, none can be more conscious than myself. Yet, if I have not failed altogether, I have presented to you a life and character that will repay careful thought. We have traced together the sturdy, honest boy, doing well the rougher duties that came upon him, yet conscious of the higher work in store; the careful painstaking student, intent upon qualifying himself for a life of usefulness and honor; the husband and father, making glad the hearts of those whom Providence had placed in his keeping; the quiet citizen, ever ready, by counsel, energetic work, and money, to aid every enterprise calculated to advance the general welfare; the man, who never for a moment lost his independence of character, and whose honor was above reproach; and the kind and skilful physician, not intent upon his own schemes of ambition, but willing rather to serve, without ostentation, his suffering fellow-creatures.

Others have attained higher eminence, and won greater applause, by the brilliancy of their attainments, but when the end has been reached, to none has it been said with more truth, "Well done, good and faithful servant, enter thou into the joy of thy Lord."

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REPORT OF THE COLUMBIA COUNTY MEDICAL SOCIETY.

For the past few years our Society has had no representation in the State Society owing to lack of interest on the part of its members, but recently a more healthy action has taken place; four new members have joined, and it is now in fair working order. The locality, topography, and geology of this county have been reported heretofore. No mortuary record is kept.

A severe epidemic of diphtheria has extended over certain portions of the county. In twenty cases I treated it as a constitutional disease, with quinine and iron, and at the same time used gargles and spray of chlorate of potassa, carbolic acid, chloral, bromide of potassium, iodine, etc.; of the twenty cases so treated, eight died, nine had troublesome sequelæ, three convalesced slowly. In the twenty first case I commenced the use of ice, applied constantly to the throat in a bladder. The method which I found most satisfactory was to take an ordinary bladder, cut off the neck, and introduce two pieces of ice about the size of a small egg, then forcing out the air, securely tie the opening; I then laid the bladder on a piece of soft cloth sufficiently long to go around the neck and wide enough to wrap three or more folds around the bladder, with a piece of ice in each end. I encircled the neck with this and ordered it retained until it melted, when it was to be again prepared as at first. If the nasal cavity was the seat of the exudation, I also applied ice to the parotids and to the sides of the nose. I then gave a saturated solution of chlorate of potassa, containing five drops of tr. ferri chlor., to the teaspoonful every hour, and in the seventy-eight cases so treated, but one died, and none had sequelæ.

Typhoid fever has occurred in families living on the hills, and in some instances involving every member of the same.

Malarial diseases have prevailed to the usual extent, and yielded to the old remedy, sulph. quinia. Scarlet fever and whooping-cough have been noticed, but not in an epidemic form.

No obstetrical case of interest has been reported.

Surgery.—Injection of a large vascular tumor of the lower lip

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with carbolic acid met with marked success. The following case may present some points of interest.

On the 11th of January I was called in consultation with Dr. J. J. Brown, of Mifflinville, to see a child born two days previous, of healthy parents. The messenger left word for me to "bring my instruments." On arrival, some six hours after, I obtained from Dr. B. the following history. Two days previous he attended Mrs. A. in her first labor, and delivered a healthy male child weighing 10 lbs. Nothing unusual was noticed at the time; the next day he was informed that nothing had passed the child's bowels, and he ordered castor oil. That night a messenger came for him and said "the child has no place for a passage." On examination I found Dr. B. had made a slight incision midway between the scrotum and coccyx. The nates presented a smooth convex surface without any depression. The penis was very small, admitting only the smallest sound. The child was very restless and it was evident that the oil was increasing its suffering. I at once enlarged the incision, dissecting upward and backward toward the curve of the sacrum, three inches, through a dense fibro-plastic material, without encountering muscle or large vessel. At this point I detected what I thought was the bladder. On pressure fecal flatus passed via meatus urinarius with a distinct sound, soon followed by a small quantity of urine in which was found traces of fecal matter. Believing it useless to prolong an operation without some assurance of success, and knowing there was some communication between the gut and bladder through which nature might relieve herself, I desisted after placing in the opening a piece of lint. Once during the night traces of fecal matter were found in the urine. The next day (Jan. 12, 1880) no evidence of rectal pouch could be found; later in the day the child refused nourishment; soon vomiting came on at intervals, which continued until its death five days from its birth and three after the operation.

Post-mortem examination revealed the pelvic cavity diminished in size and partly filled with a fibro-plastic material. At the juncture of the sigmoid flexure and rectum was a dilated tube terminating abruptly in a long slender straight tube, $\frac{1}{8}$ of an inch in diameter and $1\frac{1}{2}$ inch in length, running parallel with the bladder, entering or uniting with the urethra at the neck of the bladder, partly separated by a fold of tissue that acted as a valve preventing air from passing back into the gut from the urethra and bladder but allowing it to pass through the gut into the urethra and bladder. The urethra was drawn upward and the bladder was incased in the same plastic substance which filled the lower portion of the pelvic cavity, it could only be dilated 2 inches in the long and $\frac{1}{2}$ inch

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in the short diameter. The penis measured $\frac{3}{8}$ of an inch in diameter, $\frac{7}{8}$ of an inch in length, and to all appearances was perfectly formed.

B. F. GARDNER,
Chairman.

Dr. L. B. KLINE, of Catawissa, sends the following report of diphtheria and surgical cases.

Diphtheria of a very malignant and fatal type has prevailed in this town and vicinity since the early part of June, 1879. The cases were few in number during the months of June, July, and August, the epidemic reaching its climax in October, but continuing its force with occasional abatement, through the months of November, December, and January, with a few sporadic cases until quite recently, there being no cases at the present time.

I cannot definitely state the number of cases that have occurred in the practice of the different physicians of the place, but think it safe to say that it has at least reached 600, with 59 deaths. In my practice I have had 150 cases with 11 deaths.

Prior to the present epidemic, diphtheria has never prevailed largely in this community; sporadic cases occur occasionally, with now and then a death. The malignancy of the disease may be inferred from the fact that in several families, as high as four deaths occurred within a few days. The disease attacked persons of all ages, from the child of a few months to persons advanced in life; but two deaths, however, were reported in persons over 16 years of age.

Etiology.—The cause of this disease is still involved in uncertainty, different theories being advanced; the latest and perhaps the most generally received, is that of vegetable organism or the bacterial theory. The contagiousness of the disease is fully established; having gained a foothold, it is doubtless spread largely in this way.

The character of the disease varied much in different cases; in the most malignant ones the fauces were frequently completely covered with the false membrane, the throat and neck early becoming badly swollen, and the diseased action extending to the nasal passages.

The first symptom complained of was generally that of pain in the throat. Many patients were taken with a chill accompanied or followed by nausea and emesis. In about 25 per cent. of the fatal cases death was caused by the extension of the diphtheria from the throat to the larynx and air-passages below.

Treatment.—In way of treatment we have nothing encouraging to offer to the profession, as the usual remedies that were formerly

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relied on proved futile in this epidemic. We see a great many "sure cures" offered, but when put to the test they are found perfectly unreliable. The most important part of the treatment is that directed to keeping up the vitality of the system. I will give a brief outline of my treatment in general, but in diphtheria as in every other disease each case demands the treatment indicated by its various peculiarities.

In the way of medication the tincture of the chloride of iron, and quinine are very important. The following formulæ is a very good one:—

		Grams.
℞.	Tr. ferri chlor.,	32
	Glycerinæ,	32
	Spr. æth. nit., āā f℥j;	32
	Quiniæ sulph. gr. xxiv.	1,6

S. Teaspoonful every 2 to 4 hours, for a child 10 to 12 years of age.

The chlorate of potash is doubtless of value, and should be administered quite freely, both for its local and constitutional effects. Permanganate of potassa may be of advantage, especially in cases of great fetor.

In consequence of the great prostration liable to come on in many patients, alcoholic liquors should be administered early and freely, and steadily persevered with. The diet should be liberal, and consist of the most nourishing food; milk I believe to be the most reliable and easily administered; beef-tea also answers a good purpose, when it agrees with the stomach. The milk may be given ice-cold; ice itself should be allowed freely throughout the attack.

Local Treatment.—Nothwithstanding the fact that this is doubtless a constitutional disease with a local manifestation, I am convinced that a great deal may be accomplished by attention to the local symptoms. In cases where it can be done without injury to the part I frequently mop the throat with equal parts of tincture of the chloride of iron and glycerine. Carbolic acid and glycerine may frequently be used with good effect. Lactic acid is highly commended by Prof. Bartholow of the Jefferson Medical College, to be used as a gargle, spray, or by mop; he claims that it is the only article that will dissolve the membrane. I have tried it in a number of cases with no apparent benefit.

Cloths dipped in ice-cold water and applied to the neck give relief, and in cases of a great deal of swelling seem to reduce it. I have used ice applied to the neck, but not in a sufficient number of cases to justify an expression of opinion.

I also think well of the vapor of hot water impregnated with carbolic acid; it affords considerable relief in many patients. When

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complicated with an extension of the disease to the *larynx*, I believe there is little if any hope, unless it be by an operation. It is true that now and then a case of cure is reported, but there is always reason to doubt whether it was really of a membranous character; in some cases there is no doubt but that it is due simply to inflammation.

The operation of *tracheotomy* has doubtless been successful in saving life, but the cases of recovery are so few that the physician hesitates to urge it strongly upon the friends. I believe, however, it should be more frequently performed, though it may be as a last resort. I had at least two cases during the epidemic that had all the symptoms of true diphtheritic croup, that recovered; in these cases I used the inhalation of slaking lime with good effect. Of my fatal cases 3 died of the croupous form, the other 8 of blood-poisoning.

It seems very apparent that this disease demands and should receive more thorough investigation by the profession than it has yet received. It is one that is the dread of every community where it has raged in its malignant form.

Surgical Cases.—Mr. Hayden Hughes, an engineer in the employ of the Philadelphia and Reading Railroad Company, was injured December 16, 1879. When just this side of Ringtown his engine jumped the rail, and after running some distance on the ties turned over, going down a bank, pinning Mr. Hughes under his engine, where he was held for two hours. I was immediately summoned, reaching the scene of the accident just after he had been extricated. On making an examination I found the lower end of the left femur badly crushed, there being several fragments; it involved the joint. There was also a wound of the soft parts; the foot and toes of the corresponding limb were severely burned; the toes into a crisp, from having rested against the hot boiler during the two hours that he was held under his engine. There was also a penetrating wound of the right leg below the knee; the dorsal surface of the right was also burned.

After he was brought to his home Drs. Robins and Willets were called in consultation and assisted in setting the limb and dressing the wounds. As it was impossible to tell the extent of the burn on the left foot, and as the patient was anxious that an effort should be made to save the toes, we did not remove them at that time, but waited for the line of demarcation, when we amputated all the toes together with a small portion of the extremities of the metatarsal bones. The patient got on remarkably well. At this writing the foot is pretty well healed; the leg is in good condition, the bone being well united, with motion of joint unimpaired; there is, how-

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ever, some shortening of the limb. The condition of the foot prevented us keeping up the extension as strongly as it should have been. Taking into account, however, the extent of the injuries, I think the result very satisfactory.

Mr. Chas. Bogert, an employé of the Philadelphia and Reading Railroad Company, was injured December 15, 1879, by a piece of steel from a cold chisel lodging in the left eye. He went immediately to a physician, who took charge of the case but failed to find any foreign body in the eye. In about eleven weeks he came under my charge. I at once discovered that there was something in the ball of the eye, and administered an anæsthetic and removed a piece of steel measuring $\frac{3}{4}$ of an inch in length and $\frac{1}{4}$ in width, weighing 13 grains. The sight was of course destroyed, but the wound healed nicely.

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REPORT OF THE CRAWFORD COUNTY MEDICAL SOCIETY.

THE winters that have passed since the last report from this county, being those of 1878–79, and 1879–80 with the intervening summer, have presented greater meteorological changes and more marked diversities of climate than have been observed in this section in the preceding forty years. After an unusually mild and open autumn lasting late into December, winter was ushered in suddenly and with violence on the 20th of December, 1878, by a storm of unusual severity, marked by high winds, very low temperature, —22°, and a fall of twenty-nine inches of snow. With only a brief lull of forty-eight hours the return storm made its appearance on the 25th, Christmas-day. This was equally severe in point of low temperature and high wind, while the snowfall was greater, amounting to three feet, and by its great weight crushing buildings and breaking down trees. The highways were almost completely obstructed for two weeks, whilst the depth of snow, four and a half feet, placed a complete embargo upon the lumber and oil-mining interests, which form so large a portion of the commercial features of this section. Fortunately the great body of snow rapidly extracted all frost from the ground, and we escaped the danger of freshets by the gradual disappearance of the snow under the action of the sun, and the absorption of a large proportion of the water by the ground. Although the ground was covered with snow until nearly the 1st of April, yet at that time spring commenced at once and was very forward. This section escaped the early drouth which affected other portions of the country, but was favored with copious showers until late in June. Dry weather then began and was uninterrupted until October. The deepest wells were dry, and so were all of the smaller streams that were not protected by dense forests, and fed by springs of unusual volume. The summer was not unusually warm, nor marked with the usual extremes of temperature. The thermometer rarely registered above 90°. In November the autumn rains began and have continued almost constantly ever since. But twice during the winter has there been sufficient snow to furnish sledding. On the 27th and 28th of December, 1879, and for five days in February

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1880, a sleigh could be used with advantage. During the balance of the winter mud was king, with the exception of a few days in March when there were light frosts. The rainfall has been continuous and heavy, and only occasionally interrupted by a day of warm sunshine, or brief but not severe frost.

So much for the weather, and now let us speak of the sickness which prevailed throughout the county. I am in receipt of several interesting communications which will appear in their proper places. Although these emanate from but three points, Meadville, Spartansburg, and Titusville, yet as these towns are widely separated, they may be considered to fairly represent the whole county.

MEADVILLE.—Under date of March 4, 1880, Dr. J. C. EAGLESON writes as follows: "Your circular came to hand some days since and was mislaid, but turned up to-day in time to comply with your request. 1st. No epidemic has prevailed in this region during the year 1879. 2d and 3d. Number of exanthems treated by me during the year were only 8 cases, all scarlatina. They were all of mild type and all recovered without special sequelæ. 4th Diphtheria has not been prevalent. The cases occurring in my practice have not been of a malignant type, and I presume owing to that fact I have no fatal cases to report. As to treatment, I rely mostly on quinine, tinct. chlor. of iron, chlorate of potassa, beef-tea, soups, wine, and brandy, and any form of light nutriment; isolation of patients and cleanliness. 5th. We have more or less of malarious disease during the warmer portions of the year, especially in the spring and fall. But since the abandonment of the Erie Canal this vicinity is troubled less with this type of disease. The surrounding country is rolling, with gravel and clay soil. Subsoil along the bottom of French Creek is mostly gravel so that drive wells are used for water supply. 6th. Phthisis does not prevail to a great extent. 8th and 9th. We have no data to get the vital statistics of our city, there being no general record kept of births and deaths.

Dr. DAVID BEST reports as follows, under date of March 1st, 1880: "From your circular I conclude you only want to know what diseases have passed under my own observation. I am glad to inform you that our city and the surrounding country have been free from epidemics and endemics. In early autumn the remittent fever was quite prevalent but mild in type; intermittent fever also prevailed to a greater extent than usual. As for typhoid I have seen but two cases this year. Both occurred in the same family. The nervous system was overwhelmed by the force of the poison, and the disease

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terminated fatally in a few days. I have treated but few cases of exanthema this year. Sixty will include all that has passed under my notice. Fifteen of scarlet fever, very mild, and they run their course in from seven to twenty-one days. All recovered. Anasarca followed at least one-fourth of the cases. Measles was prevalent in the spring. I treated thirty-five children. The most common sequelæ were bronchitis and pneumonia. No deaths. There were a great many cases of chickenpock through the county, but so mild that physicians were not often called in. I saw but ten cases. I have not seen a case of diphtheria the past year. Phthisis is almost unknown in my practice. While I have treated a goodly number of cases of bronchitis I have seen but one case of tubercular consumption the present year. I think French Creek Valley will, for salubrity, compare favorably with any in the State, and should be made the retreat for persons having incipient consumption. I had a very interesting case of fracture of the neck of the femur, in a lady over sixty years of age, the wife of a physician. She had a severe fall. I treated the fracture with the usual appliances, extension and counter-extension, measuring the limb every day, and had the satisfaction of seeing the patient restored with no shortening of the limb. I mention this case not for its novelty, but from the conviction I entertain that we may sometimes have the limb of normal length. . . . The total mortality during 1879 was eight per month, as given me by the health officer. The births that have come under my care this year have been ninety-eight. All did well. The saddest thought connected with my practice is the number of abortions that have come under my care; some thirty of them. Three have died, one from tetanus, one from peritonitis, and one from metro-peritonitis. Very many that have recovered have impaired constitutions.

Dr. J. C. Cotton sends the following communication:—

The central portion of the county has been exempt to an unusual degree during the year just closed from epidemics of all kinds. Diphtheria, that has frequently prevailed in this locality for the last twenty years in a malignant form, has been very mild in a great majority of cases during the year. My treatment for this disease is about as good as others—no better—as it will cure curable cases, but it won't do much for the other kind. I confess I have but little confidence in boasted specifics for diphtheria, and when I read of physicians having one hundred or five hundred cases and not losing one, I am inclined to doubt the diagnosis or the veracity of such practitioners. The following combination of standard remedies I think I have received much benefit from, viz.:—

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	Grams.
℞.—Tinc. chloride of iron, fʒij ;	8
Pulv. chlorate soda, ʒij ;	8
Syrup of lemon, q. s. (to flavor) ;	
Water, q. s. f℥iv. M.	128

S.—A teaspoonful every two hours.

The above mixture, with supporting remedies and diet as seem to be indicated, with copious external use of cosmoline where the fever and heat are excessive, will give as good results as any I have ever witnessed.

As for local applications to the throat, not much reliance can be placed in them. It has been my custom, however, where there is much swelling of the external glands, to make counter-irritation with refined petroleum. Aside from a mild detergent gargle nothing should be used to excite the already inflamed and irritated throat, with the delusive hope that a stimulating, alterative action will cause the slough to separate and fall more readily; in nine cases in ten such a course will retard recovery.

I have had three cases of fracture in the elbow-joint within the year, and had the usual amount of annoyance to prevent anchylosis. I used the hard rubber splint for extension, the elasticity of which greatly facilitated the cure.

In one of the above cases, a boy three or four years old fractured the left radius about the middle. The parents did not recognize the gravity of the accident for two weeks, when the arm became so out of shape that the family physician was consulted. An effort was made by directing pressure properly to remedy the deformity which was only partially successful. While this arm was in splints the boy fell and fractured the outer condyle of the right humerus, and after the first arm was free he was vaccinated on the left arm immediately over the site of the fracture of the radius. Ten days afterwards, when the arm was greatly swollen and inflamed, he had the bad fortune to fall a third time, which produced a second fracture of the radius at the same point where the former fracture occurred. By extemporizing a splint, making a fenestrum an inch and a half in diameter over the vaccination, the arm was straightened, and good results secured all over this much fractured boy.

SPARTANSBURGH.—Dr. A. P. WAID reports as follows:—

Epidemic scarlatina of mild type prevailed. Total number of cases treated 56; number of deaths none. Albuminuria with dropsy followed in a few cases.

Diphtheria prevailed in November and December, and was very malignant. Total cases treated 18; fatal cases 4. After testing the various treatments I am inclined to favor the chlorine mixture, quinine, whiskey, beef tea, etc.

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Malarial diseases not common. Phthisis not common. Deaths from all causes 13.

Total number of births attended, 56. Premature labors, 20.

TITUSVILLE.—During the winter of 1878–9 this city was unusually free from disease. Our usual endemic of catarrhal fever or influenza accompanied the melting of the deep snow, but presented no special features, and, as is quite unusual, croup was a rare visitor. Scarlatina prevailed, but the type was so mild that but few cases required other care than home nursing; and sequelæ in the form of otitis, glandular enlargements, and dropsy were not frequently met with. About the middle of June an epidemic of diphtheria of very malignant type appeared amongst us. Although the number of cases was not great the death-rate was large. A few cases of scarlatina maligna occurred at the same time, and of these almost all died; but as a rule scarlatina preserved the same mild features which had characterized it during the preceding winter.

Diphtheria preserved its malignant type from its onset until about the first of September, when the type of the disease changed, and after this all, or nearly all, of the cases recovered. During the prevalence of the epidemic, every plausible method of treatment was fairly tried and tested. From all methods there were both recoveries and deaths, and in about the same ratio. To none could any physician turn with confidence. Personally I got better results, or thought I did, from the following general plan of treatment: Thorough local disinfection by sprays and washes, preferably using chloral hydrate and alcohol. Disintegration and rapid removal of sloughs by sulphurous acid. Internally: Benzoate of soda to saturation; alcohol freely; quinine and iron as far as tolerated; milk diet. Quinine and iron did most good during convalescence. Dialyzed iron was better borne than the tinct. of the chloride. Drinks of sulphurous acid were allowed ad libitum, as was also the local use of steam. After beginning the use of the benzoate of soda I had no fatal cases. Neither did any case die in which I had inaugurated treatment by a scavenger dose of calomel. But as neither of these remedies were used until about the time the type of the disease began to change, I am not prepared to offer them as specifics. The prophylactic powers of both sulphur and alcohol were fairly tested by me, and apparently with good results. I say apparently, because at the same time thorough disinfection and strict quarantine were also observed. Further statistics in connection with this epidemic will be given when the report of the Board of Health is reached.

During the summer of 1879 there was not the usual amount of

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diarrhœa observed. This city rarely suffers much from this disease for reasons that will be apparent later in this report; but last summer it was noticeable from its rarity, owing doubtless to the absence of an excessively high temperature.

Typhoid fever is with us a very rare disease, and during the last year was if possible more so than ever; indeed it seemed to be endemic only in the vivid imaginations of our homœopathic practitioners.

In the fall, remittent fevers made their appearance, but cases occurred less frequently than usual, and showed an almost total absence of any tendency to assume a typhoid form. Yet they showed a marked tendency to cerebro-spinal congestion. A few cases of well-marked cerebro-spinal meningitis occurred, which, though severe and protracted, mostly made a favorable termination. The tendency to cerebro-spinal congestion continued throughout the winter, and was a noticeable feature of all febrile attacks, whether of a malarial or catarrhal origin. It yielded promptly, in my hands, to the iodide and bromide salts of potassium, when administered after a brisk mercurial.

Notwithstanding the wet weather, or perhaps because of it and of the absence of severe cold and extremes of temperature, pneumonia was of rare occurrence. The few cases which did occur generally terminated favorably.

The city of Titusville is built in a beautiful valley at a high elevation above tidewater. The streets are wide and airy, and the climate agreeable during most of the year, and especially salubrious and pleasant during the hot months of the year. The exhilarating mosquito has not yet been naturalized in our place. The town is admirably drained by an effective system of well-built sewers which empty by way of Church Run into Oil Creek, a stream which has a rapid fall and swift current. The city is supplied with water by the Holly system. The source of supply is from wells sunk in an island above the town, which tap the subterranean stream of water some twenty feet below the bed of Oil Creek. The water is remarkably free from any organic contamination, contains no lime, is pure, cool, soft, and very grateful to the taste. The supply is unlimited. With these favorable hygienic conditions we now possess an added safety from the active exertions of a board of health composed of energetic and intelligent men, who aim to live up to the requirements of their position. This Society is represented on the board by Dr. George W. Barr, whose well-known energy and intelligence is a guarantee that their action will be intelligently directed. Organized in the fall of 1878, the Board of Health was just getting into good working order when the diphtheria appeared in the town.

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With prompt energy the board at once commenced and kept up a rigid police of the city, adopted and carried out the system of disinfection prescribed by the rules of the National Board of Health, and contributed largely to limiting the spread of the disease by instructing the community in the laws of hygiene, and by forcing the unwilling to obey them.

A register of births and deaths was established and carefully kept during the past year, so that now and hereafter we will be able to give reliable vital statistics of the city. From the report of the secretary of the board I extract the following statistics of general interest.

Total number of births reported 207. Males 111. Females 96.
" " of deaths " 146. " 81. " 65.

The number of births reported can only be approximating the actual number, as it is impossible to enforce reports from nurses, midwives, etc., who are not regularly engaged in the business. In this way probably 20 per cent. of the births are not recorded. The mortality is, however, absolutely accurate and shows a death-rate of 16.22 per thousand. The tables annexed give vital statistics of interest.

Deaths and Diseases.

	Total.	Male.	Female.
Diphtheria	32	17	15
Scarlet fever	6	2	4
Typhoid fever	3	1	2
Membranous croup	6	2	4
Cholera infantum	2	2	
Bright's disease	2	1	1
Apoplexy	1	1	
General paralysis	1	1	
Convulsions	1	1	
Consumption	14	9	5
Inflammation of lungs	6	2	4
Inflammation of bowels	3	..	3
Inflammation of brain	2	1	1
Dropsy	3	3	
Liver and kidney diseases	2	1	1
Heart disease	2	..	2
Hemorrhage of stomach	1	..	1
Marasmus—infantile.	1	1	
Rickets	1	..	1
Infants	10	8	2
Old age	7	2	5
Drowning	2	2	
Cause not reported	38	23	15
Total	146	81	65

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Zymotic Diseases.	Number of cases.			Deaths.		
	Total.	Males.	Females.	Total.	Males.	Females.
Diphtheria	127	52	75	32	17	15
Scarlet fever . . .	81	35	46	6	2	4
Typhoid fever . . .	4	2	2	3	1	2
Total . . .	212	89	123	41	20	21

In reply to my questions to physicians Dr. George O. Moody reports: "Of exanthems, twenty cases and five deaths. The most frequent sequelæ of scarlatina, kidney troubles; and of diphtheria, prostration. Has had several cases of phthisis and thinks this locality no more exempt from this disease than sections nearer the coast. Since June 1st, 1872, has had thirty-six births and miscarriages; one case of twins, three miscarriages, one breech presentation. Did not keep a record of his obstetric business during the first six months of the year."

Dr. George W. Barr reports "twenty-six cases of exanthems, ordinarily of mild type. Seventeen cases of diphtheria with six deaths. Finds phthisis of occasional occurrence. Has had sixty-seven births in his practice during the past year."

Dr. Theodore J. Young says "scarlet fever prevailed to some extent throughout the greater portion of the year in a mild form. There have been, however, a number of cases of a malignant type, which proved fatal in nearly every instance. Out of eleven patients, three suffered with the malignant anginose type, and two succumbed from exhaustion and marasmus respectively.

Diphtheria raged in epidemic form from May to the close of winter. This is the second time within the history (20 years) of this city, and in severity and fatality far exceeded the first, which invaded our lines in 1861. During the past two years diphtheria has visited nearly every town in our neighborhood, and with equally sad results. I attended forty-two cases, thirty of which were malignant in character, by which I mean the following state of affairs, viz., extensive invasion of the mouth, tonsils, uvula, and nostrils by the diphtheritic exudation, a general typhoid condition of the system, disgusting fetor, hemorrhages, invasion of the larynx with aphonia, extensive tumefaction of the glands, terminating in some instances in suppuration, etc. Out of this number I lost four from the following immediate, or (supposed) remote causes. One refused medicine and food and died from starvation on the twenty-fourth day. One died from want of proper attendance in a large family

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where five suffered with the disease without adequate assistance or means. The other two died in one family, brother and sister, aged respectively two and seven years, in the height of the disease, and I attribute scrofula as the remote cause, both being afflicted with ichthyosis over the entire body. Nearly all of these cases received the same treatment with the exception of the last two, in which the medicines did not appear to be borne well. I rely principally on the bichloride of mecury, tr. ferri chlorid., potass. nit. and chlorine, and milk diet with sufficient stimulants. I believe it essential to cut short the formation and extension of the exudation, as it is from the absorption of this local poison that the fearful consequences ensue later in the disease. If on the third or fourth day the patches become clearly defined in outline and begin to break down, we will rarely have any trouble in controlling the disease. Otherwise we shall generally find the cases worse from day to day, and if recovery takes place eventually a shattered constitution will be the result. I consider scarlatina and diphtheria as essentially different diseases, one with a tendency to recovery, the other to death. The first infectious and highly contagious, the second infectious, but to a less degree contagious.

In surgery I have had two cases of dislocation of the elbow. One completely *backwards*, and the other a *lateral* dislocation outwards with the ulna resting upon the external condyle and the radius beside it. This accident is, I believe, extremely rare, and presents a striking deformity which makes an error in diagnosis impossible. Both dislocations were readily reduced, though in the latter case I had considerable trouble to prevent anchylosis in spite of early passive motion. There was for a time extensive tumefaction of the arm, and the skin assumed a dark purple hue for about eight days. Cooling and stimulating lotions together with an appropriate splint were the successful treatment.

The Crawford County Medical Society has preserved its usual activity during the past year. The quarterly meetings have been well attended and many interesting cases have been brought before the Society, and papers have been read, which evince thoughtful investigation and research on the part of their authors. The discussions have been practical, and while taking a wide range, in spite of differences of views, have never given rise to aught that was discourteous, or to any want of harmony.

From the report above presented it will be seen that the year just passed has been one of general good health. With one exception

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no serious epidemic has prevailed in this county, and that one was of limited extent. The type of disease generally has been very mild and many serious diseases such as typhoid fever have been almost entirely absent.

GEO. B. BISHOP, M.D., 1828–1880.

This Society and city have met with a serious loss in the death of Geo. Benjamin Bishop, M.D., which occurred the 18th of January, 1880, after an illness of seven weeks. His disease was cerebro-spinal meningitis. Dr. B. was fifty-two years of age and had practised medicine for twenty-five years. He was a physician and an earnest upright Christian. His noble qualities of mind and heart had endeared him to his friends and drawn very closely the bond which should always exist between a physician and his patients.

WM. VARIAN, M.D.

TITUSVILLE.

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REPORT OF THE CUMBERLAND COUNTY MEDICAL SOCIETY.

CARLISLE has been remarkably free from disease within the last year. No special epidemic has appeared in our midst. An occasional case of diphtheria or scarlatina of a malignant type appears in sporadic form, but the disease does not assume the epidemic character. Considerable malarial fever prevails in our district, but readily yields to proper treatment. We have no mortuary record. We have a regularly organized board of health to take care of the sanitary condition of Carlisle, and hope in the future to be able to give a statistical report of deaths in our old time-honored borough.

In obstetrics we have nothing of interest to report.

Surgical cases of a minor character have been quite numerous, the details of which are not sufficiently interesting to embody in this report.

All of which we respectfully submit.

S. P. ZIEGLER, *Chairman*,
SAMUEL H. BREHM,
I. W. ROOP,
Committee.

Dr. S. P. ZIEGLER reports the following case of indolent ulcer of the leg treated externally with hydrate of chloral, and internally with prot. iodide of mercury and opium.

July 15th, 1879, was called to Mrs. G. who was suffering with indolent ulcer of right leg for three years. When I was called to take charge of the patient, the ulcer was three inches wide, five inches long, nearly encircling the whole limb, and half an inch in depth, partially filled with dead sloughing integumentary tissue of a very offensive character, with intense pain and loss of rest. I cleansed the ulcer with a weak solution of carbolic acid, and then dressed it with a solution of hydrate of chloral gr. lx (4 grams), water ℥j (32 grams), and applied a bread and milk poultice. Internally prot. iodide of mercury, pulv. opii, āā gr. ½ (.033 grams), made into pill form. S.—One three times a day. In forty-eight hours the pain entirely ceased. With this treatment in a few days I had a clean,

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healthy, odorless, and granulating surface. I now omitted the poultice, and continued the hydrate of chloral solution, covered the ulcer with gum cloth, and flannel roller bandage applied pretty tightly. From this time I had a steady healing process without interruption until the ulcer was entirely closed and covered with a healthy and normal skin. The patient, with the exception of the first three weeks when I confined her to bed, has since that time attended to her household duties. The time required to heal the ulcer was five months. I would ask, Is the cure attributable to the use of hydrate of chloral, or the gum cloth and flannel roller bandage alone? Certainly, the clean, odorless, and healthy granulating surface, and cessation of pain I would attribute to the hypnotic, stimulating, and antiseptic properties of the chloral. If I am correct, we have another valuable and healing remedy to add to our list of antiseptics and stimulants for treating foul and indolent ulcers.

Dr. G. Winfield Zeigler, Carlisle, reports the following case:—

The patient, a little girl 13 years old, came to me about a year ago suffering with chorea, well defined and general.

Having conducted the first published experiments on the use of amyl in the treatment of this disease (so far as I know), and meeting with satisfactory results, see Phila. Medical Times, July 8, 1876, I naturally was inclined to the administration of it in this case; but owing to the marked cardiac excitement induced I found it to be rather an inexpedient drug in this particular case, and much to my dissatisfaction was obliged to discontinue it. The subsequent treatment consisted in nerve and general tonics, in conjunction with some of the local applications commonly employed in such cases.

An interesting and significant point just here is the fact that this choreaic girl was affected with convergent strabismus of the left eye, and that when she recovered from the effects of the chorea, which she did within about two months of treatment, the squint also became relieved—so much so that it left but a slight deformity of the eye, thereby showing clearly and conclusively the relation of chorea to strabismus in many cases, or cause and effect, for certainly the weakened rectus muscle was strengthened by the aid of the tonics engaged.

Had I the time or space here to take up the subject more fully, I should like to say more upon it. To come to the crowning occurrence in the course of this interesting case, let me add that after the lapse of nearly a year from the time when recovery from the chorea was accomplished, amaurosis of the squinted eye developed.

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Here my report becomes indefinite for the reason that I have not been able to secure a proper ophthalmoscopic examination.

Her statement ran somewhat thus: About six weeks ago she felt a queer sensation in the eye which she could not understand or describe. The attack was rather sudden, and owing to the above condition experienced she was led to close the good eye and thereby discovered the major loss of sight in the other. Just to what extent loss of sight did exist at that time I have not been able to learn; but fearful of the consequences that might result from her disclosure of the facts to her parents, she was led quietly to resolve not to make any revelation as to her condition until three or four weeks later, when she found that sight was entirely gone, when she ventured a confession of the facts, and I was called upon again.

I attempted an ophthalmoscopic examination, but succeeded in getting only a passing dim glance of the fundus.

From what I saw, and other unmistakable proofs which I took of her case, I am fully satisfied as to the truth of her statement.

I am inclined to look upon the case as one of nerve atrophy due no doubt to hemorrhagic influence.

I regret exceedingly not being able to give a more connected report of the course and termination of this case. I shall hope, however, to follow it up, and at some future meeting of our Society be able to report more fully on the subject. The treatment upon which I have placed the patient consists of iodide of potassium, hyoscyamus, and nux vomica.

Not having had access to any extensive library, or really the time to carefully look the matter up, I am of course not in a position to pass opinion upon the rarity or importance of my case. It, however, appears to me one of marked interest, and I trust it will furnish thought for others who may read the meagre history I have given of it.

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REPORT OF THE DELAWARE COUNTY MEDICAL SOCIETY.

THE Delaware County Medical Society has held its usual monthly meetings during the past year. Each meeting usually includes a lecture from one of our members, followed by its discussion. This, with reports of cases and their discussion, usually takes up the whole of the time of the meetings not devoted to business. For making up this report I have had given me but two written reports, one furnished by Dr. Frances N. Baker, of Media, who reports a case of pneumonia in which convalescence was ushered in by the development of a skin eruption.

"The case was one of pneumonia of the entire posterior lobe of the left lung. Patient aged 25. Highest temperature reached during the attack was 105°, pulse 120, respiration 60. Duration of the pyrexia 12 days; there was an evening exacerbation of 1.5° to 2°. The attack was marked after the first 24 hours by great general prostration. Herpes appeared upon the upper lip, at the nasal ala, and upon the cheek of the affected side greater than a silver dime. On the 13th day of medical attendance, temperature in axilla 98°, pulse 80, respiration 24. Physical signs: area of dulness in the mammary and infra-axillary region the same; auscultation revealed crepitant rhoncus with their bubbling râles in same localities.

"Respiratory murmur still impaired. Whilst making these observations I noticed that the chest and whole upper posterior portion of the body was covered by an eruption greatly resembling measles. In the afternoon of the same day, the neck, face, arms and hands, even to the finger-tips, were covered with the same. There was none upon the lower half of the trunk or lower extremities until the next morning, when they in turn were involved. By this time that upon the upper half was fading; desquamation followed promptly in the order of the coming on of the eruption. During the period of the eruption there was no increase in the temperature—no unfavorable symptoms of any kind. At no time during the attack had there been any critical discharge, nothing but the eruption to mark the crisis as a peculiar one. Convalescence progressed rapidly. Treatment, which after the first two days had been supporting and

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stimulating, was not changed in the least by the presence of the skin manifestation."

Dr. JOSEPH H. HORNOR, of Thornton, says:—

"Since I commenced the practice of medicine in Delaware County my attention has been drawn to the very damp condition of many of the houses in the county, and the possible influence this dampness may have in causing disease . . . I have seen several cases of a mild type of fever which I have no doubt were caused in this way.

"I was called May 16, 1877, to see Mr. B.'s family, found four children and their governess sick—none were bed-fast—the children trying to study but lacked energy to do so; they had some fever; tongue not much coated and a *creep* every day, but not at a particular time; this condition of affairs had been running on for some time. Now I could see nothing in this case to cause sickness but the damp stone house with too much shade about it, keeping out the sunshine. This house is on one of the highest points on the West Chester Road.

"Sept. 26th, I was called to see another family where I found four of the members suffering with the same train of symptoms. Two of these cases were of a more aggravated form of the disease and they had been more confined to the house and consequently brought more thoroughly under the influence of the cause of the disease. Now what was this cause? In both of the series of cases mentioned we had dampness, stone houses, too much shade, and in one case the house was located in a low place with water running near making the cellars damp. Now my idea is that this is a disease caused by a fungus growth on the walls, carpets, and everywhere else in these damp stone houses. In certain seasons you can see fungi plainly on heavy carpets in rooms not much used, and therefore not often swept."

Dr. Hornor gives diagnostic points to show that the disease he describes is neither typhoid fever, malarial fever, typho-malarial fever. "You find this disease occurring when the houses have been cleansed and the stoves put away for the summer. It is generally seen in September while we are having the characteristic humid weather of that month. I find that *fire* sufficient to thoroughly dry the house will render the recovery of the patient very much more rapid and sure. I make it a rule to have fires made and the house kept dry whether it be hot or cold. Another case will illustrate the good effects of this plan. Sept. 3, 1879, I was called to see a child of Mr. C., I found it very low, suffering from diarrhœa with fever of a remittent type; great gastric irritability; discharges from the

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bowels were watery and frequent, as high as thirty in twenty-four hours. The child had been sick for some time before and under the care of another physician who had been giving quinia, no doubt thinking the disease of malarial origin. The house was situated within ten feet of a spring and was very damp. Medicine seemed to have no effect until I had a fire built in the sick-room with directions to keep the room dry even if it were necessary to make it very hot. The weather was exceedingly warm and humid. I also ordered condensed milk to be given the child in place of fresh cow's milk which she had been taking. She commenced to improve at once and was well in a short time."

As no other reports have been presented I think it may be of some interest to collect from our minute book some items, mostly mere notes, showing some of the prominent points of treatment advocated by some of our members.

Drs. Ellwood Harvey and Wm. B. Ulrich have each made further reports of cases of membranous croup cured by the treatment of large doses of calomel. Some deaths have occurred under this treatment but the greater proportion have recovered. Dr. Ulrich has given as much as twenty-six grams in twenty-four hours. Dr. Harvey gives ergotin in menorrhagia; tr. verat virid. and tr. opii deodorat. in catarrhal pneumonia. Dr. William B. Ulrich gives ext. ergot. fld. in pulmonary hemorrhage; guarana for sick headache. Dr. E. Fussel, chloral in dysmenorrhœa; tr. verat. virid. with opiate in pertussis; tr. aconite followed by nauseating doses of ipecacuanha in croup with use of ammonium chloride in atomizer. Drs. Allen, Ash, and Kerlin use anæsthetics (ether or chloroform) in all labor cases. Other members do not use anæsthetics in cases where labor is normal.

Dr. D. W. Jefferies recommends as a general anæsthetic methyl bichloride.

Dr. M. Fisher Longstreth narrates a case where a uric acid calculi, 25 cm. by 37 cm. in its longest and shortest diameters, was removed through the female urethra by simple pressure from behind through the vagina.

Dr. Kerlin highly recommends tannic acid, 65 cg. to 1 gm., t.i.d., as an adjuvant to other tonic treatment in epilepsy; gives also chloroform during the paroxysms; also recommends in this disease and in chorea, ferric bromide.

In erysipelas Dr. Harvey gives quinine, and "always expects to control the disease in a few hours."

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Dr Ulrich combines the use of quinine and tr. ferri chlorid.; other members depend wholly upon the latter remedy for internal use.

Dr. S. P. Bartleson reported a case of a child, three years old, nourished for two weeks (till recovery) with wine whey and beef-tea per rectum.

In diphtheria Dr. D. W. Jeffries gives large and frequently repeated doses of tr. ferri chlor. with frequent use of potass. chlor. in powder with sugar.

Dr. Bartleson, and several others, add to this treatment, except using potass. chlor in form of saturated solution, the use of vapor from slaking lime.

Dr. L. Fussell uses tr. ferri chlor. in large and frequently repeated doses, with local use of a saturated solution of sodic hyposulphite by the atomizer.

Dr. Harvey depends upon large doses of a saturated solution of potassic chlorate, say 65 grams every two hours.

Dr. M. Fisher Longstreth gives camphor and chloroform in colic.

Dr. Kerlin reported a case where one of his patients swallowed 600 pills, 400 comp. cathartic and 200 Hooper's pills; died seven hours afterward.

Also a case of death of an epileptic boy of tabes mesenterica after only two weeks of acute illness. In his ordinary health had convulsions only at long intervals; during the last two weeks of his life had from 20 to 80 per day. There was during this time no complaint of pain over the abdomen, and after death no lesions were found except in intestines and mesentery. Tubercles were found which had not undergone cheesy ulceration, but at points where two of them were located in opposite or proximate knuckles of the bowels ar adhesive inflammation had been set up which resulted in some eighteen columnar bands which bound the small intestines into nodular masses. Mesenteric glands were greatly enlarged, many larger than a pigeon's egg. The large intestine was constricted and greatly thickened at six to eight points, and was filled with impacted feces.

Dr. E. Fussell uses belladonna in form of ointment, 1 part to 4 in anthrax and furuncle.

Dr. D. W. Jeffries reported a case of complete prolapsus of bladder following prolapsus uteri, which had been naturally reduced by pregnancy, successfully treated with a globe pessary.

Dr. S. P. Bartleson gives whiskey in typhoid fever "when temperature rises above 101", regulating the dose according to marking of the thermometer. In high fever he had given as much as 1.5 litres in twenty-four hours.

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Drs. Harvey and Ulrich depend greatly upon quinine in treatment of this disease.

Dr. E. Fussell prefers chloroform to any other remedy for dilating a rigid os uteri.

Drs. F. Marion Murray and D. W. Jefferies recommend the internal use of chloroform to prevent the occurrence of an expected chill.

Dr. Isaac N. Kerlin gives the following summary of his views upon syphilis:—

"1. Syphilis is a {contagious? / inoculable?} disease, which should rank among the contagiums.

2. Syphilis is transmitted by heredity in a variety of dyscrasiæ, affecting large numbers of the second—probably later generations.

3. The contagium of syphilis may be distributed to the innocent through the most insidious and least suspected channels—for example vaccination.

4. Great caution (greater) should be exercised by physicians in pronouncing on the cure of a syphilitic patient, and the safety of his marriage.

5. The prostitute belongs to the incorrigible classes (imbecio-criminal) if I may coin the word, and for her own sake and the security of society should be known to and be under the strictest surveillance of a medico-municipal organization.

6. Prostitution cannot be stamped out under the existing social conditions of civilization and of human nature itself; it must be tolerated to avoid greater evils.

7. In view of the universality of prostitution, the extent and ravages of syphilis, and the insensibility of all classes to the importance of some restriction on prostitution for the prevention of its contagium, therefore we of the medical profession have a great duty to perform.

8. That the newer and comparatively purer blood of this great American nation should be protected by either—

(*a*) The Quarantine and Board of Health provisions suggested by Dr. Sims; or, in their failure, by

(*b*) The strictest legislative enactments (including, if necessary, a severely just taxation on the nefarious and debauching business of prostitution), such as have controlled Hamburg for hundreds of years, and is now imitated by many nations of Europe and Asia."

These conclusions were made the special order of the day for discussion at one of our meetings. Drs. Isaac N. Kerlin and T. R. Graham arguing in their support, and Dr. Edwin and Linnæus Fussell against them, in so far as they recommend the legalization

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of prostitution, and any plan of surveillance over these women. Dr. E. Fussell claimed that any law which licenses debauchery must necessarily be ineffective.

In concluding this report, I would like to record my testimony to the value of the treatment of acute rheumatism (introduced to the profession by J. Russell Reynolds) by large doses of tr. ferri chlor. I had three years ago the disease myself; took two grams every two hours, largely diluted with water, and was *well* in three days. I have found the treatment almost always successful, most so in anæmic cases.

I would also like to record my testimony as to the value of the old but much neglected treatment of acute dysentery by large doses of ipecacuanha. My experience with this disease has been principally while in the naval service in the China seas. It is as nearly a specific as any medicine can be. I have treated hundreds of cases in the epidemic and sporadic forms; never lost but two cases, and these were patients who were nearly moribund when the treatment was first instituted.

LINNÆUS FUSSELL,
Reporter and Secretary Delaware Co. Med. Soc.

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REPORT OF THE FRANKLIN COUNTY MEDICAL SOCIETY.

THE description of this county relative to its location, hydrography, topography, geology, etc., was given by the writer in the report of 1875, *Transactions*, page 631, and it is, therefore, not necessary to again report. To embody the transactions of this Society in the form of a report that would do justice to it would be too great a task to be now undertaken.

This Society was organized more than twelve years ago; quarterly meetings are held at which besides the stated business, discussions are made upon subjects of professional interest, and efforts are being made to induce a more general attendance upon the part of its members, and with this object in view it is the custom of the President at each meeting to appoint a member to read an original essay upon some medical topic at the next meeting, and to announce a subject for discussion. These requests have been carefully complied with, and as a result many of these papers have given evidence of learning and research, and the subjects for discussion have brought out a great amount of individual knowledge which has proved of great interest to the Society.

Of the discussions causing deep interest were "Membranous Croup and Diphtheria, the Differential Diagnosis and the best Method of treating said Diseases," and "Puerperal Eclampsia; the Pathology and Treatment." Appended to this report will be found a paper recently read before this Society on "The Etiological Relations of Phimosis and Adhesions of the Prepuce to Epilepsy," by Dr. D. F. Unger, of Mercersburg.

In speaking of the advance making by our Society, President Chritzman remarked: "In looking over the field and comparing the present condition of our Society with that of the past, I think I can clearly see marked evidences of progress. To the careless observer there may appear no change. The progress we have made and are still making, is like that of a deep river on its way oceanward, silent and unseen, yet felt in its silent movings, and gaining force with every step onwards, in the earnest desire for the success of our Society and great interest taken in its prosperity."

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The past year throughout the county has been comparatively healthy, with some exceptions.

Of Epidemics.—Measles.—The early spring was ushered in with an extended epidemic of measles, which has been pronounced by physicians in whose locality it prevailed as being the most malignant and fatal epidemic of this disease they ever experienced, especially its complications, bronchitis and broncho-pneumonia.

Diphtheria.—During the latter part of the winter an epidemic of malignant diphtheria prevailed and is still prevailing in the southern portion; notably in the town of Waynesboro, where it has proved alarmingly fatal; and is attributed to some local cause.

Scarlatina has prevailed to a limited extent, mostly sporadic and generally of a mild type, and not assuming epidemic proportions.

Pertussis prevailed in epidemic form in the southwestern part of the county, notably the Welsh Run district; and Dr. H. G. Chritzman reports having used the picrate of ammonia as recommended at one of our meetings, by Dr. Suesserott, and he thought with great benefit.

Rheumatism.—The winter being unusually open, rheumatism prevailed in various sections of the county—salicylic acid is much used as a remedy by our physicians.

Pneumonitis has prevailed to some extent, and has been treated by some with large doses of sulph. quinia with unusually good results.

Malarial Fevers.—We see very little of these except the cases imported here, residents of malarial districts coming here or railroad employés who are compelled to remain part of the time in the malaria of the Susquehanna.

Typhoid Fever we scarcely see here, yet we occasionally have it endemic—as in the town of Waynesboro a year or more ago—this was undoubtedly from local cause.

Our Society has lost by death three valuable members during the past year, and accompanying this report will be found appropriate obituary notices of each. I also append the meteorological record taken by J. S. Nixon, Esq., observer for the U. S. Meteorological Bureau, who has kindly furnished it to me.

J. MONTGOMERY.

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Meteorological Table taken at Chambersburg, Pa.

By J. S. Nixon, Meteorological Reporter.

Latitude 40°, longitude 77°. Height 605.42.

	Temp. Max.	Temp. Min.	Temp. Mean.	Rain in inches with melted snow.	No. days in which cloudiness average 8 to scale of 10.
January	50°	—5°	22.50°	2.06	7
February	46	9	27.50	2.42	12
March	62	10	36.00	2.90	7
April	84	30	57.00	1.08	9
May	91	42	65.50	3.40	5
June	94	52	73.00	2.83	11
July	98	60	79.00	2.33	2
August	97	58	77.50	5.10	10
September	88	34	61.00	3.60	4
October	86	28	57.00	1.76	7
November	74	14	44.00	.72	7
December	61	14	37.50	3.96	15

Etiological Relation of Phimosis and Preputial Adhesions to Epilepsy.

BY D. F. UNGER, M.D.

Contraction of the prepuce sufficient to constitute disease was recognized by medical writers many years ago. Adhesion of the internal layer of the prepuce to the glands was noticed by some of the older authors. The diseases claimed to proceed from this contraction were difficult micturition, irritation from retained secretion, inflammation, abscess, etc. Recently, however, it has been claimed, especially by Drs. Sayre, Otis, Barwell, and others, that grave nervous disorders are produced by these contractions and adhesions; and it is to the consideration of this claim that my paper is devoted.

About a year and a half ago, in a conversation with Dr. Ramsey, my mind was first directed to Dr. Sayre's views. I wish to make this acknowledgment to Dr. Ramsey, who said he had learned of the subject through Dr. Lane. Since that time I have met with and operated upon six cases of adherent prepuce. Before detailing these cases it will be best to give the views held by authors prior to Dr. Sayre's publications, and also the views of Dr. Sayre and his supporters.

Nearly all the older writers speak of adhesions as well as of contractions, showing that this condition was recognized, but none seem to have attributed more than local disturbance to it. The following

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symptoms, taken from Bumstead, we believe may be taken as a fair experience of the older views. He says: "Among the symptoms which have been ascribed to congenital phimosis are: balanitis, constant itching and even pain at the head of the penis, inordinate excitability of genital organs, frequent erections, erotic dreams, seminal emissions, imperfect development of penis and testicles, incomplete and painful ejaculation of sperm, vesical tenesmus, incontinence of urine, gastralgia, neuralgia, and general lassitude and prostration." He continues: "Probably no one will be disposed to call in question the occasional connection between the milder of the above affections and phimosis. With regard to the others some doubts might be legitimately entertained, were it not for the circumstantial report of the symptoms and the fact that simple removal of the elongated prepuce has in most cases brought complete and permanent relief." He further says: "When we reflect upon the sympathy existing between the different portions of the genito-urinary apparatus, and between the latter and other organs, we might reasonably expect to meet with at least occasional instances in which irritation of the head of the penis due to this cause gives rise to disturbance in other parts of the body." Here is a hint at the advanced views, but nothing definite is claimed. To put it in a few words the older observers, although they were aware of the mucous adhesions, speak most of the phimosis; and the disturbances which this caused were all of a local character. The recent theory, the one in which we are at present interested, is that irritation of the genital organs produces in addition to the symptoms enumerated by the older authors various disturbances of the nervous system.

In 1870 Dr. Sayre presented to the American Medical Association a paper on "Partial Paralysis from Reflex Irritation, caused by Congenital Phimosis and Adherent Prepuce." Later he published the same views under the title of "Spinal Anemia with Partial Paralysis and Want of Co-ordination, from Irritation of the Genital Organs." In his pamphlet he gives nine cases of children who suffered with partial paralysis. In seven of these he found phimosis with adherent prepuce. These were all either cured or greatly benefited by relieving the preputial contraction and breaking up the adhesions. Two cases, females, were relieved by excising the clitoris. Dr. Sayre says he has no fixed theory, but suspects that in many cases there is an anemic condition of the spinal cord.

We give Dr. F. N. Otis's views in his own words; he says: "Dr Sayre's observations seem to relate chiefly to the effects of preputial contractions and adhesions and irritation of the clitoris; but in my own experience, genito-urinary affections, giving rise to reflex phe-

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nomena, have not been restricted to the prepuce and clitoris, but have extended to the entire genito-urinary tract." He also refers to a report of his of nineteen cases of reflex irritation, most of which were apparently due to urethral stricture.

Barwell, of London, observed that infantile paralysis was due to irritation produced by adherent prepuce.

Dr. J. Lewis Smith gives the case of a boy who could not walk, but was made to do so by dividing adhesions.

In my own cases I did not meet with paralysis, but with epilepsy. After reciting their histories I will try to show how these adhesions act as a cause of epilepsy.

CASE I.—A well-developed boy, aged two years and three months, always a well and active child, except that he once had spasms and also has had peculiar nervous attacks. The spasms occurred when he was a year and eight months old, and were thought to be due to intestinal irritation. They were of the usual form of convulsion, such as we often see in children, and continued at intervals for three to four days, during which time he was unconscious. A few months after these convulsions the father called my attention to the nervous spells which had been occurring at intervals since the spasms and perhaps, though unnoticed, before them. In a well-marked attack he presented the following symptoms: If playing about the floor he would utter a peculiar cry, come to his mother, grab her, turn his head to left side, roll his eyes up, become stiff and unconscious; at first his face would be pale and then become flushed; as consciousness returned he would appear frightened, and wished to be held in her arms. Many of the attacks were not so well marked as the one just described, but such attacks or milder ones were occurring once or frequently during every week. It was also noticed that he handled his penis a great deal, and that he had the habit of lying on his belly and rubbing his genitals on the floor. He was so addicted to this habit that, whether at home or abroad, he had to be constantly watched. I gave him bromide of potassium, which appeared to benefit him, but while using it I became acquainted with Dr. Sayre's views concerning phimosis. At the earliest opportunity I examined him and found his prepuce long and contracted, although he passed water without difficulty. His mother says, however, that when quite young, he had at times dysuria, and the foreskin formed a sac in passing water. On April 16, 1878, assisted by Dr. E. Negly, I performed the operation of circumcision. On turning back the internal layer of the prepuce it was found adhering tightly to both sides of the glands and to the entire circumference of the corona. The adhesions were torn and dissected off. Behind the

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corona was found a collection of cheesy matter which had produced ulceration at several points. The sebaceous matter was washed off and the two layers of the prepuce stitched together, and the whole organ, especially around the corona, well greased with lard. The wound healed quickly, and required no attention except to prevent adhesion at the points where such had before existed. A year and a half has now passed since the operation, and although the boy is not entirely free from his nervous spells, enough change has taken place in them to say that there is great improvement. The habit of handling his genitals and getting down on the floor is entirely broken up; his nervous spells do not occur now for months, whereas they used to come every week or oftener. They are milder, not so long, he does not scream, is not unconscious, and recovers more rapidly. When they do occur now they can nearly always be associated with disordered stomach or seat worms. On relieving these disorders he is free from the attacks. He is quite intelligent, strong, active, and growing rapidly.

Believing that there was an etiological relation between the adhesions and the nervous spells in the case just related, I determined to examine any other children similarly affected. I knew a boy afflicted with epileptic fits, and I give his history as—

CASE II.—A boy, aged eight years, parents healthy, was always well when a babe, and nothing was observed to indicate mental or physical weakness. At two years he had well-marked convulsions, which lasted several hours. After this he had light nervous attacks for a year or more, when they assumed a distinct epileptic form. He is now idiotic, and has a series of epileptic paroxysms every few weeks, with occasional paroxysms in the intervals. His body is well developed, he is of cheerful disposition, and has a very pleasant, bright countenance. On examination I found the mucous layer of the prepuce tightly adherent to the sides of the glans and entire circumference of the corona. On turning back the adhesions a ring of sebaceous matter was found firmly compressed behind the corona. For a few months after the operation, which was done October 19, 1878, no change in the frequency or severity of his fits was observed. Later his attacks were lighter and less frequent, and his father felt sure he was improving, until a few months ago, when they became again as severe as ever. This return of severity was probably due to the inflammation about the glans and corona which was found to exist. He was in the habit of playing with his penis, and likely irritated it in this way. After the operation his father watched him carefully, and kept the sebaceous secretion well washed away, but later he says he neglected to attend to it. I saw this boy a few

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days ago, and must say, all things considered, I cannot report any improvement.

CASE III.—A boy, aged nine years, parents healthy, never had any important sickness, always a well and healthy child. About August, 1878, he was greatly frightened by an older boy running after him with a fork and threatening to kill him. On the same day of this fright, and ever after it, he was noticed to have attacks in which he would turn his head to the left side, and this turning would be accompanied with rolling up of his eyes and twitching of the muscles of the left side of his face and neck. These increased in frequency, and by February amounted to an epileptic attack—loss of consciousness, falling and general convulsion. About this time I first saw the case. He had in my office an attack of turning aside of his head. I proposed to examine him for adhesions. On turning back the foreskin adhesions to the corona and glans were found. A small opening existed through the adhesion to the space back of the corona, and through this opening a large quantity of smegma oozed on retracting the foreskin. The parts near the adhesions were quite sore and irritable. A few days after this, February 27, 1879, I operated, and found considerable ulceration produced by the decomposing smegma. No improvement occurred in this case for a few months; indeed as late as May he had a well-marked epileptic seizure; but since that time there has been marked improvement. He now has no attacks in which he falls; does not get them at night; they are all mild, and he does not get them half as often. He is also greatly improved in his disposition, having been intolerably irritable last winter.

CASE IV.—A boy, aged six years, had been ill for a month or more with what was thought to be tubercular meningitis. Some remarks concerning micturition when an infant led me to examine his penis. There was no contraction, but there were adhesions to the glans and corona. The case was so critical at the time that it was considered prudent not to operate. Death took place a few days later.

CASE V.—A strong, perfectly well boy, aged three years, was observed to handle his penis very often. He would leave his playmates in preference to play with his tool. He told his mother his tail hurt him. On examination I found the usual adhesions and confined smegma. The adhesions were torn back, the smegma removed, and the organ well anointed. This operation completely cured his bad habit, and he now doesn't know he has a tail.

CASE VI.—A bright, active, well-developed boy, aged two years and four months, after complaining that his penis was sore, was

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found to have adhesions. These were broken up. In this case but little cheesy matter was found. He had begun the habit of playing with his penis, but since the operation, which was done about six weeks ago, he has discontinued it, and also has not complained of any soreness.

In three of these cases, epilepsy in various forms had been established. How was it produced by the preputial adhesions? Let us first review the nature and pathology of epilepsy.

Until quite recently, epilepsy was recognized as a perfectly definite disease. But as pathological knowledge increased, it was found to be a symptom of organic disease of various organs—of conditions which directly or by mechanical means, occasioned anemia of the brain substance. Here epilepsy ceased to be epilepsy; instead of being a disease it became a symptom, and was called epileptiform spasm to designate the convulsive seizure belonging to such diseases as uræmia, profuse hemorrhage, hydrocephaloid, great hyperæmias, intra-cranial diseases, etc.

So, also, that form of epilepsy formerly known as sympathetic or reflex, cannot be looked upon as a disease *per se*, but, as an expression of disturbance of the reflex nervous centres, occasioned by peripheral nervous irritation. Nothnagel, an able and recent authority on this subject, objects to the use of the word reflex, and proposes to call those cases secondary in which an affection of the brain, the spinal cord, or the peripheral nerves, is present as a source of excitement and a starting point for the disease; and those cases idiopathic or primary in which no such excitation can be proved.

Nothnagel also insists on what he calls the epileptic change, by which he means an altered anatomical condition of the pons and medulla oblongata and upper part of the cervical medulla. The nature of this change is unknown and either comes into existence there primarily or is excited secondarily by either the peripheral nerves, the cerebrum, or spinal cord.

It would not be in place to discuss here the various theories advanced to explain just how this epileptic change is brought about, or upon what physiological or pathological laws the seizures depend. It will be sufficient for our purpose to show that epilepsy is caused by irritation of peripheral nerves. Nothnagel is clear and positive upon this point, and says that this peripheral irritation is the best established and most frequent definite anatomical lesion in the development of the central epileptic change. Wounds of nerves, pressure of tumors, peculiar formation of cicatrices, eruption of teeth, are given as instances of such irritation.

I believe we may very reasonably add to this list the irritation

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produced by the retained smegma in adherent prepuce. Here is a constant, long-acting irritant. This we believe brings about the central epileptic change which finally culminates in regular epileptic paroxysms. Some may ask, Why do not the paroxysms cease to return upon the removal of the irritant? In many recorded cases the epilepsy has been cured by such removal; and in our cases, marked improvement has taken place in two, and as time passes we expect further improvement. But, should improvement not occur, our argument is not refuted, because many good authorities hold that the paroxysms do not always cease upon the removal of the irritation. The operation removes the peripheral irritation, but not the central epileptic change which has been established by this irritation. We remove the poison from the body, but the effect of that poison on the nervous system remains, and the paroxysms continue as an expression of that effect.

Again, it may be asked, why did not epilepsy appear in Cases V. and VI. We answer that every irritation, or the same irritation in different persons, is not followed by spasm. And further, the experience of observers is, that the peripheral irritation generally exists some time before the epileptic change is established.

Another fact, it seems to me, argues in our favor, viz., in every case where these adhesions were suspected as the cause of the nervous disturbance they were found. In Cases II. and III. the parents said such could not be the fact; that they had never noticed anything wrong in their private parts or in their actions. Yet, upon examination a complete ring of irritating smegma is found behind the corona. And further, this abnormal condition of the glans is the only irritable diseased tissue to be found in their bodies, both boys being in appearance and action physically perfect.

One thing might prove our theory to be false should it be established as a fact, and that is, that all prepuces are congenitally adherent. Our text-books do not enlighten us on this question. Ashhurst in a foot-note says that Bokai claims that adherent prepuce is congenital. Observers are at work, and I believe the question will soon be settled. Prof. J. Lewis Smith instituted an examination of all the children who came to the Bellevue Clinic. Preputial adhesions were found almost daily and generally without symptoms, though occasionally with paralysis.

Be the adhesions congenital or not, we believe they often cause local and general disturbance, sufficient to require operative interference. The degree of contraction of the prepuce and the extent of the adhesions vary greatly, and of the two we think the adhesions are more frequent and of more pathological importance. In

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five of my cases there were no contractions at the time the adhesions were discovered. Whether they existed earlier in the cases and had a causative relation to the adhesion I cannot say.

For operation, cases may be divided into two classes. First, those requiring circumcision or some modification of it. Second, those not requiring circumcision. In both classes the adhesions require breaking up.

I will not take up time by detailing the manner of performing the circumcision, as this is fully and better described in many of our text-books. However, I think it important to give particular attention to the internal layer of the prepuce, for in this layer the contraction generally exists. I believe most cases would be best treated by simply slitting up the internal layer with a small probe-pointed bistoury. However, the physician must be governed by the condition of the parts in every case.

The adhesions I found were best separated by the following method: Let the assistants hold the child firmly on a hard table; having retracted the prepuce as far as it will go, hold it, as well as the body of the penis, tightly between the thumb and forefinger of one hand, grasp the glans between the thumb and forefinger of the other hand; by now convexing the penis and separating the thumbs the prepuce is easily and quickly retracted to the desired extent. Any cheesy collections are washed away and the parts greased with clean lard. Washing and reanointing may be done once or every other day. I think great care should be taken not to leave any part re-adhere, and this can only be prevented by constant watching.

But I must close, as I fear further adhesion to this subject might produce irritation in the peripheral nerves of my worthy hearers, if it has not already done so. I have in this imperfect shape brought this question before the Society, because I think it one worthy of investigation. And should such investigation place epilepsy among the diseases of the past by the re-establishment of circumcision, I should feel that my present effort was not in vain.

CHARLES GARVER, M.D., 1843–1880.

BY J. MONTGOMERY, M.D.

This is the fifth time since its organization, that the Franklin County Medical Society has been called upon to record the demise of those connected with its membership. The last one summoned to the common bourne, CHARLES GARVER, was a son of Samuel Garver, Esq., of Scotland, this county, was born at the paternal homestead on the 13th of October, 1843. His primary education

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was obtained at the Chambersburg Academy. In 1861 he entered the freshman class of Pennsylvania College, at Gettysburg, and won the prize usually given the student who occupied the highest rank in his class. During the second year of his collegiate course ill-health compelled him to abandon his text-books for a season. Subsequently he resumed his studies, but his health was not sufficiently restored to justify him in completing his literary course. At the time of Lee's invasion of Pennsylvania, in 1863, when a call was made by the State authorities upon the militia to serve in the field, the deceased joined the company of students formed at Gettysburg. His brief service as a defender of an imperilled government was followed by a long and severe illness which undermined a constitution naturally strong. In 1865 he entered the office of Drs. Richards and Montgomery, at Chambersburg, as a student of medicine, and applied himself with untiring assiduity. He took his first course of lectures at Bellevue Hospital, New York, and subsequently enrolled his name at the Jefferson Medical College of Philadelphia, whence he graduated in 1868. The next fall he again attended a course of lectures at Bellevue Hospital, the better to prepare himself for the exactions of his profession. Few men connected with the profession have been more conscientious in the discharge of its duties or more regardful of its ethics than was he whose early death we deplore to-day. He was honored and respected by his associates as an amiable and upright physician, and wherever he was known he inspired love and confidence. My acquaintance with Dr. Garver, both personal and professional, was from his student life down to the period of his death, and during that time I never heard an imputation cast upon his personal or professional character. His reputation was exceptionally blameless and honorable. He was a man of most benevolent and unselfish nature. He was diffident and reserved in his intercourse with men, and it was only his most intimate associates who fully appreciated his substantial worth and character. He was a man who had a great fondness for literature. Books were his cherished companions. Although devoted to his profession, he eagerly acquainted himself with everything in the domain of knowledge which came within his reach, and there were few subjects that he could not discuss with rare intelligence.

Some years since Dr. Garver was married to the eldest daughter of Hon. F. M. Kimmel, of Chambersburg, who with an interesting little daughter, five years old, survives him.

The memory of our deceased friend's faithful companionship, his entertaining conversation, and professional integrity will long be cherished by those who enjoyed his acquaintance. Loved and lamented by a large circle of friends, there are none who will not contribute a flower to the garland which affection twines about his tomb.

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ABRAHAM H. SENSENY, M.D., 1811–1879.

BY S. G. LANE, M.D.

Dr. ABRAHAM H. SENSENY was born in Chambersburg, August 5, 1811, and died in his native place July 17, 1879, after a lingering illness. He belonged to a family of noted physicians. His grandfather, Abraham, removed to Chambersburg from Lancaster County in 1781, and practised in that town until his death in 1844. For two years he was the only physician in the place, which had been founded less than twenty years before. His father, Jeremiah, began the practice at an early age, and continued in active service until he was called away in 1863.

Dr. A. H. Senseny received a fair classical education at the schools and academy of his home, where he distinguished himself by his studious habits. In 1835 he graduated at Jefferson Medical College, being a favorite of the celebrated George McClellan, and an assistant of the professor at his college clinics. After he received his degree he settled in Chambersburg, and inherited a large practice which he easily maintained. Not until his protracted sickness broke him down utterly, did he cease to attend calls, making long visits to the country until within a few weeks of his death. He was a laborious practitioner, performing an incredible amount of work. No physician in his neighborhood ever did so large a business and none ever enjoyed such a brilliant reputation. But few serious cases occurred in his vicinity which he was not called to see; and in his office many of our most successful physicians were educated.

Dr. Senseny excelled in all the branches of the profession; he was eminently skilful as an obstetrician, was dextrous in surgery, and unsurpassed as a general practitioner; he was fertile in expedients, quick in diagnosis, and prompt and persevering in therapeutics.

His vast and varied experience furnished a rich storehouse of cases, and made his resources inexhaustible. No one could be more observant, or more indefatigable in watching his patients. His memory was singularly retentive. He seemed to know the pathological history of every family within the circle of his practice. Dr. Senseny was an incessant reader, and had the rare faculty of assimilating the contents of a medical book with rapidity. His library of standard authors was extensive, and he was a generous patron of the periodicals, keeping himself fresh in the advancement of the science of medicine. Occasionally he contributed articles for other publications. With eminent members of the profession he was intimate, and was esteemed by them as a worthy associate.

Dr. Senseny was a remarkable man; he had great force of character, was very positive in his views, very decided in his conduct. He was the most widely known member of his community, the most authoritative of its physicians, and his *dictum* on a medical question was final. He was a good citizen, full of generous impulses, sympathetic and helpful.

As a whole, he possessed more of the qualifications of a general practitioner than are often united in an individual. His marvellous

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physical endurance; his exceptional readiness to respond to calls; his abundant resources, and perseverance in their application; his mechanical skill and expertness in manipulations; his ready expedients in emergencies; his courage and self-possession; his knowledge and judgment; his magnetic influence over patients, relatives, and attendants; his handsome presence, and earnest, pleasant deportment combined to make him a full, round, complete physician.

Dr. Senseny was the first President of the Medical Society of Franklin County.

B. RUSH SENSENY, M.D., 1841–1880.

BY S. G. LANE, M.D.

Dr. B. Rush Senseny, third son of Dr. A. H. Senseny, died in Chambersburg on the 28th of March, 1880, in the 39th year of his age. He suffered from *morbus coxarius* in his childhood, but recovered with anchylosis, and led a singularly active life until about two years ago, when he received a severe injury which brought on violent inflammation, resulting in suppuration, and necessitating excision of the head of the femur, in June, 1879. Although the operation was performed by Dr. S. D. Gross, it was unavailing, and he perished from exhaustion.

Dr. Senseny studied medicine with his father, and during the war served in the military hospitals in Pennsylvania and in the West. In 1863 he graduated in medicine at the Medical College of St. Louis. At the restoration of peace he practised several years in his native place, but the quiet life of his home being uncongenial with his adventurous spirit, he went to Utah, Colorado, Nevada, and neighboring mining regions, and engaged in active operations there. While he was in White Pine, Nevada, an epidemic of smallpox raged, and he was chosen President of the Board of Health, and given the charge of a smallpox hospital, which he managed with great success. Returning to Chambersburg, he established his vaccine farm, and pushed the enterprise with characteristic vigor, writing copiously on the subject of bovine virus for various medical journals, and securing a lucrative business, sending his products to Canada and throughout every State in the Union. At the same time he engaged extensively in the culture of tobacco, and published a work on "Tobacco, from the Seed to the Warehouse," which is regarded as a very valuable treatise.

Dr. Senseny was highly gifted; he was a brilliant conversationalist, an easy, graceful writer; was well informed on all subjects, and was remarkable for vivacity and force.

His suffering during the last year of his life was constant and intense; but he bore it with heroic fortitude, and met his untimely fate calmly, sustained by a full unfaltering faith in his salvation through Christ.

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WM. H. BOYLE, M.D., 1813-1878.

BY S. G. LANE, M.D.

Dr. Wm. H. Boyle was born on Rothlin Island, off the northern coast of Ireland, about sixty-five years ago. In his infancy his family came to America, stopping briefly at Canada and thence immigrating to Franklin County, Pa.

In 1837 he entered the office of Dr. Finley as a student of medicine, but his preceptor soon after died suddenly, and he became a pupil of Dr. N. B. Lane, under whose tuition he continued for three years. After his pupilage he entered upon the practice of his profession in Chambersburg, where he remained in active duty until his fatal sickness. In recognition of his qualifications as a physician and his virtues as a man, *The Pennsylvania Medical School* conferred upon him the honorary degree of Doctor of Medicine.

Dr. Boyle possessed fine literary taste and great versatility in letters, was endowed with rare conversational powers, and was fascinating in address. As a physician he enjoyed the respect, confidence, and affection of his brethren, which is a sure test of the character of a medical man.

The distinguishing virtue of Dr. Boyle was his kindness to the poor, whom he never turned away from his door, but whom he attended as faithfully and as assiduously as he attended their wealthy neighbors. During his whole career he rendered as much gratuitous service as all his colleagues. Dr. Boyle was in a true sense a self-made man. He had not the advantages of an early education, of affluent or influential friends; his pathway through life was rugged and thorny, but he trod it bravely, patiently, cheerfully, discharging his duties manfully, and doing deeds of mercy and charity as he went.

He was a founder of the Medical Society of Franklin County, filled its highest offices, and worked steadily for its success.

He died at his residence in Chambersburg, April, 1878, after a protracted and distressing illness, lamented by the entire community.

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REPORT OF THE INDIANA COUNTY MEDICAL SOCIETY.

THE members of the Society having failed to furnish me reports from the different sections of the county, I am unable to make a full report. The meetings have been well attended, and a lively interest taken in the proceedings. At our last meeting it was decided to hold four regular meetings a year instead of two as heretofore, and it is our expectation that this will increase the interest and usefulness of the Society.

Within the limits of my own practice, there has been no general epidemic sickness during the year. There has been some diphtheria, mostly of a mild form, but occasionally striking a family with intense malignancy; in one family four died—all that had the disease—the other three escaping without an attack. In the treatment I have nothing new to add, although availing myself of the best means I could command. I am only the more convinced that no treatment yet devised exerts any specific effect on malignant cases, though they may appear to, and probably do exert a good effect on the milder forms. The calomel treatment proposed by Dr. Reiter, I do think exerts a good influence in removing the membranes, as heavy membranes have seemed to me to speedily loosen and disappear under its use; but I have had three die after the membranes came off, leaving the throat in good condition from the general blood-poisoning. In spite of tonic and supporting treatment, again I have had them to die before I could get the medicine to act sufficiently to produce the characteristic stool upon which Dr. Reiter lays so much stress. In summing up my experience in this disease, I am free to express the opinion that the final issue in each case depends more upon the *dose* of the poison producing the disease, rather than upon the effect of any of the remedies so much vaunted as cures.

The scarlet fever has usually been mild in type, and but few fatal cases. In two cases in which the attack was severe, but yielded to treatment and cool bathing so that recovery appeared certain, diphtheria supervened on the subsidence of the fever, and was fatal in both cases.

The following case I deem of sufficient importance to notice:

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Was called Jan. 31st to see Miss E. M., æt. 24. Previous to last November had always been healthy; no special heredity in family. November last she was attacked with pleurisy of left side; was confined to her bed four weeks; she was then dismissed by her attending physician as convalescent, having no trouble but what would pass off in a little time; although able to be about, she still had cough, dyspnœa, and great restlessness at night. These symptoms continuing, I was called in to see the case. At my first visit, physical examination revealed flatness throughout the whole extent of the left chest, except a very small space at which there was tolerably clear resonance and bronchial breathing. Upon testing with the hypodermic syringe I found that an effusion of serum filled the pleural cavity, and as it had been of such long standing, and the general condition of the patient would not lead us to expect to be able to cause absorption by use of medicine, I decided to aspirate the chest, and on Feb. 2d I performed the operation, removing five and one-half pints of fluid. This was followed by great relief—cough, dyspnœa, and restlessness rapidly subsiding. She was placed upon tonic treatment with diaphoretics and diuretics. On Feb. 22, still finding flatness at lower part of the chest, I again aspirated, removing one and one-half pints of fluid. She improved rapidly after this, her troublesome symptoms subsiding; had good appetite and was fast gaining strength. This favorable condition continued until the 8th of March, when she was again attacked by pleurisy on same side followed in a few days by effusion. On March 10, I aspirated the chest again, as the symptoms were the most distressing, rapidly prostrating the patient. I removed two pints of fluid, which proved to be sero-pus. The operation was followed by no relief to the patient; she was much prostrated; there was loss of appetite, dyspnœa, pain, chills, and sweating. Temp. 101½°; pulse 120. On 12th of March, assisted by Drs. Leech and Cline, I etherized the patient, and made an incision two and a half inches long, between the fifth and sixth ribs, at posterior border of axillary space—two quarts of fluid almost entirely pus escaped at the opening; the pleural cavity was thoroughly washed out by means of rubber tubes and an elastic syringe, lint placed in the wound, and the whole covered by carbolized absorbent cotton. She rallied well from the operation with marked amelioration of all her symptoms, and improvement in her general condition gradually commenced and continued. The after-treatment consisted in thorough cleansing and dressing by the family attendants twice a day; twice a week for four weeks the tubes were introduced, and the pleural cavity washed out, using warm water with salt and carbolic acid, ʒj of each to pint of water, forcing it through the tube

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until it ran out of the escape tube clear. Every week the discharge lessened, and the symptoms grew better. Five weeks from time of operation the wound had almost closed, appetite was good, had gained strength sufficiently to walk and ride out in the open air, and every indication pointed to a speedy and complete recovery. At present writing, May 17, having seen the patient on the 16th, I find the improvement has been gradual and continuous. There is no discharge from pleural cavity, some pus had worked its way two inches below the wound in the wall of the chest, and a puncture was made, which will now allow the external wound to heal up entirely. There is still dulness in lower part of chest, but not more than we would naturally look for, as that can only disappear in a long time under the most favorable circumstances. There is no other indication than that of the patient making a good recovery. There will be but little deformity of the chest.

Respectfully submitted,

J. L. CRAWFORD, M.D.,

Ch. San. Com.

Dr. W. T. LARIMER, of West Lebanon, reports the following:—

Case of Uterine Fibroid.—Mrs. C., aged 49; married eight years; weight, eighteen months ago, 145 pounds. Catamenia regular until December, 1878. Two months after, in February, 1879, felt tumor in abdominal region or above pubes in median line, hard, firm, and resisting; but suffered no pain from it; had no discharge from womb or vagina; tumor still increasing slowly. I located here on the 10th of April, 1879, and on 20th of April was called to see her. She complained of pains and uneasiness, with a great deal of tenderness over the abdomen. She said the tumor, or lump in her own language, had disappeared, and had gone all through her. I found her suffering a good deal of pain, but could find no tumor by external manipulation; did not examine per vaginam. She thought it was gas that was diffused through her; but I gave no opinion in the case. On the 26th of May called and made a vaginal examination. Vagina normal; mouth of womb normal, no congestion; unable to pass the sound more than three-quarters of an inch. With the finger I could feel a hard resisting body in the right and posterior part of pelvis. By pressing the womb down with left hand on the abdomen, and with the forefinger of the right pressing against the solid body, I found it to be in the womb. Thought it to be a fibroid, but not having much practice in forty-six days (and being my first case), had not much confidence in my own opinion. But, happily, I was not too far from my worthy preceptor, Dr. J. L. Crawford,

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to have his opinion. He was called to see her with me on the 9th of June, and after a careful examination pronounced it a submucous fibroid of the fundus, situate in the posterior and right of fundus uteri. He recommended that she try the clay treatment. This was tried for a while, but produced so much irritation that she could not bear it, consequently had to abandon it. The patient was able to be about all the time, except at the end of every four months, when this tumor seemed to disappear as at the time I saw her first; then it would gather gradually, and the abdominal walls would be tense, the abdomen enlarging presenting a spherical appearance, and size about that of a child's head. This condition of things went on for about one year, when these periods came on about every two months. But the patient all this time was losing in weight and strength, and the tumor seemed to be increasing in size but very little. On percussion over region of tumor on outside dulness; palpation of tumor externally no wave perceptible. On April 20, 1880, patient seemed to be growing much weaker, and Dr. Robert Barr, of Indiana, was called to see her with me. After some difficulty, Dr. B. succeeded in passing the sound. The womb was elongated; passed sound at least five inches into the uterine canal. Diagnosis, submucous fibroid in the fundus to the right and posteriorly. He believed that the only hope was to enucleate the tumor by dilating the cervix uteri sufficiently to allow of the operation, but owing to the prostrate condition of the patient this was not urged. The patient's appetite has been of a craving character all the time, but the stomach has been very delicate, and would bear naught but the mildest diet. From the 20th of April the patient has been growing manifestly more weaker, and is unable to be up but a short time. On the 4th of May patient seemed to be filling up with fluid or gas, and I was called to see her in haste, and found a distinct wave on palpation in this protrusion of abdomen. Patient very weak; pulse 120 per min.; temperature not taken. Dyspnœa, and great deal of pain in back. Walls of abdomen quite tense. I determined that *Paracentesis Abdominis* was the thing to do if we could get the consent of patient, which I did very readily. Before proceeding to the operation I made my diagnosis certain, by testing with my hypodermic syringe. I drew off a syringeful of fluid, and then passed my trocar at the same point that I passed the hypodermic needle, and drew off five and three-quarter pounds of sanguineous fluid; and on the 14th, ten days after, drew off four and three-quarter pounds, inserting my trocar in the median line, and three and one-half inches above the pubes the first time, and three inches above the second. The fluid was tested for albumen, and found to be about ninety per cent. albumen, with

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some blood-corpuscles. After each tapping there was a sensible diminution in the size and tension of the abdomen. The patient was very much relieved. The treatment, I may say, otherwise was merely palliative. I have lately come to the conclusion that this fluid collection is taking place within the mass itself, its tissue being destroyed by deprivation of nutrition or inflammation. According to Dr. Sims, if such be the case, this would now be called a fibro-cystic tumor. But I hope to give further particulars of the case again.

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REPORT OF THE LANCASTER COUNTY MEDICAL SOCIETY.

LANCASTER COUNTY has no system of registering, and we can therefore make no report of mortality. There has not, however, been a great prevalence of disease in any part of the county. Scarlet fever and diphtheria have both prevailed moderately in a few localities, but have generally been mild in character.

The past winter and early spring months were characterized by frequent changes of atmosphere with variable temperature, and, in consequence, lung and chest affections, and, in some localities, rheumatism were somewhat prevalent.

The Society, in accordance with the requirements of the resolution passed at the annual meeting of the State Medical Society, held at Pittsburg, 1878, elect yearly three members who constitute a "Board of Medical Examiners;" and it gives us real satisfaction to remark that said Board, composed for 1880 of Drs. Carpenter, Atlee, and Zeigler, are carrying out fully the spirit of that resolution in the discharge of their duties.

The Society will in future publish quarterly a journal which will contain the proceedings of the Society, including papers read, cases reported, discussions on important subjects, and indeed all that may be of value to preserve.

Members are now requested to make their reports of cases in writing, and these papers are placed in the hands of the "Committee of Publication," whose duty it is to attend to all matters pertaining to the make-up and publication of the journal.

At the stated meeting of the Society in January last, it was decided to indulge in a little departure, and instead of meeting as always heretofore in Lancaster City, it was by resolution ordered, that the April meeting be held in Columbia, and that invitations be extended to neighboring county societies to meet with us.

Our members recall with much pleasure the two social meetings of the McCalls Ferry Union Medical Association (for an account of which see *Medical and Surgical Reporter*, vol. xli., No. 12, p. 274) at which they were privileged to meet so many of the brethren from the adjoining counties; and we doubt not these *social* meetings had

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much to do with creating a desire for this assembling to hold council over matters scientific.

The Committee of Arrangements extended invitations to the societies of York, Dauphin, Cumberland, and Franklin Counties, to the Oxford Medical Society of Chester County, and to the societies of Harford and Cecil Counties, Md., accompanied with the request that each Society delegate one or more of its members to present papers at this joint meeting.

So happy was the response to this invitation that our Society found it necessary to dispense with its regular order of business, and to occupy both the morning and afternoon sessions in having read the papers prepared for the occasion by our visiting brethren.

The following constituted the "Order of Exercises:"—

1. Address of Welcome, by Dr. D. J. Bruner, Columbia, Pa.

2. "The Construction and Advantages of a New Mechanical Appliance for the Treatment of Diseases of the Spine," by Dr. E. H. Coover, Harrisburg, Pa.

3. "Notes on Vital Conservation," by Dr. A. A. Hanna, Port Deposit, Md.

4. "Traumatic Perforation of the Intestine," by Dr. E. W. Meisenhelder, York, Pa.

5. "The Establishment of a State Board of Health as a Department of State Government," by Dr. J. W. Houston, Collamer, Chester Co., Pa.

6. "Rest and its Relation to Health and Disease," by Dr. S. B. Keiffer, Carlisle, Pa.

7. "Treatment of the Sick Stomachs of Pregnancy," by Dr. W. Stump Forwood, Darlington, Md.

8. "Duodenitis," by Dr. Jacob Hay, York, Pa.

9. "The Cottage Treatment of the Insane," by Dr. J. Z. Gerhard, Harrisburg, Pa.

10. "Report of Two Cases of Litholapaxy, with Remarks," by Dr. H. L. Orth, Harrisburg, Pa.

11. "Embolism," by Dr. J. W. Kerr, York, Pa.

12. "A Report of a *Post-mortem* Examination of a Patient Dying of Cancer of the Omentum," by Dr. W. W. Dale, Carlisle, Pa.

The above papers were all presented, and manifested in their preparation much care and research.

We regret that the late hour in preparing this report prevents us from presenting some of the valuable thoughts they contained.

The following resolution, offered by Dr. Houston, was unanimously adopted:—

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Resolved, That the members of this Convention will use their influence in their several County Medical Societies herein represented to instruct their respective delegates to the State Convention to therein advocate the necessity of again appealing to the General Assembly of this Commonwealth for legislation establishing a State Board of Health as a department of our State Government.

We append the following cases handed us by Drs. Davis and McCaa.

Respectfully submitted,

T. M. LIVINGSTON, M.D.,
Chairman of Sanitary Committee.

A Case of Empyema in which Perforation of Lung had taken place previous to Paracentesis Thoracis.

BY D J. M'CAA, M.D., EPHRATA, PA.

On April 22d, 1879, I was called to see Michael F., æt. 42 years, who had been ill and confined more or less to his bed for three months. He was a stone-mason by trade, and previously had enjoyed good health.

I was informed that the onset of his illness was sudden, and that the physicians who first waited upon him pronounced his disease pleuro-pneumonia. The attack was severe, confining the patient to bed about seven weeks. He then began to convalesce and was regaining his strength, when, after a lapse of several weeks, he was again prostrated with a severe chill, sharp pain in the left side, dyspnœa, followed by a febrile action. This continued for several days, leaving him in an exhausted condition. In about two weeks he was again able to leave his bed and walk around the room. The cough which never left him from the commencement of his illness, now became more annoying, and whilst in a paroxysm of coughing the patient said "something gave way inside," and he vomited a large quantity of very offensive matter.

The patient's condition now became more alarming. The night-sweats, which previously had been slight, became profuse; what little appetite he had left him. He was obliged to cough almost incessantly, and expectorated pus copiously, which severe drain upon his system again forced him to his bed. In about two weeks from this time he had another attack of "stitch in the side," and it was whilst suffering from this that I was called to see the patient. It being late in the night I did not attempt a thorough examination of the case, feeling more anxious to relieve the patient from his sufferings than to establish a complete diagnosis. I was satisfied

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that there was an extensive effusion in the left pleural cavity, and his trouble at the time was due to a fresh attack of pleuritis. Applying emollient applications to the side and administering anodynes, I left the patient for a further examination the next day.

When I again called, I felt much regret that I could not obtain a more complete history of the patient's complaint. Upon a close examination I was led to believe that the patient had suppurative pleuritis or empyema, and that perforation of the lung had taken place and the purulent fluid was being discharged through the air-passages.

The patient's condition was critical. A small and frequent pulse, colliquative sweats, relaxed bowels and œdema of the extremities, gave but little encouragement in the hope of an ultimate recovery. I ordered for the patient milk and whiskey as a diet, and gave him quinæ sulph. gr. xv. at intervals during the day. He continued under this treatment for a week, when a more favorable change in his general condition took place. The appetite returned, and a generous diet was allowed; the bowels recovered their tone, and the sweating was less profuse. He still continued to expectorate a large quantity of pus.

As he improved in strength, and notwithstanding the amount discharged daily, I found that the pus was accumulating in the pleura. All the intercostal spaces from the clavicle down, were pushing out to a level with the ribs, and the heart was displaced from its natural position. I attributed this partly to the administration of remedies to palliate the cough, thereby lessening the quantity expectorated.

The correctness of my view was soon verified by the appearance of a bulging between the fifth and sixth ribs, which I looked upon as a "paracentesis from necessity." In a few days, however, I anticipated that by making a valvular incision over the sixth rib and then pushing the knife over its margin I punctured the pleura and relieved it of at least three pints of pus. Introducing a tent and applying a compress I closed the opening and directed my patient not to disturb it until I again called. And here I would remark that after I had made the opening, with very deep inspiration and expiration there would be a discharge of air with the pus, which confirmed me in the opinion that perforation of the lung had taken place. Admitting the presence of gas in the pleural cavity, with the purulent fluid, it could not have been due to that alone.

I called to see the patient in a few days, and upon removing the compress and tent I placed him in the most favorable position for a complete drainage, and succeeded in again relieving the pleura of

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considerable pus. The same phenomenon occurred again in regard to the escape of air.

With the discharge of pus through the thoracic wall the patient's cough and expectoration became less, and in about two weeks from the time I punctured the pleura he ceased to expectorate any pus. The purulent discharge continued for some time, but with the steady improvement in the patient's health and strength it progressively diminished until after a period of three months it ceased and the opening healed.

The treatment consisted in supporting the system with a generous diet and in the administration of tonics and absorbents, tinct. cinch. comp. and potass. iodid. Cod-liver oil and whiskey were also taken regularly at intervals during the day.

The patient at this time, April, 1880, is in good health, and has completely recovered from what appeared at one time a fatal malady. With the exception of some pleuritic adhesions on the affected side, and which have produced some apparent retraction of the thoracic wall, auscultation and percussion reveal a healthy condition of the lungs. All the functions of the body seem to be normal and the patient has increased in flesh over his usual weight. He is now following his former occupation.

The points of interest in the above case, worthy of mention are:—

First, nature's second effort to relieve the pleura after perforation of the lung had already taken place. It may be said that what we considered a perforation, might have been the bursting of an abscess of the lung. If so, auscultation and percussion failed to show any cavity in the lung. Besides the history of the case following the paracentesis tended to support the former view.

Second, the free admission of air into the pleura without apparently aggravating its pyogenic action.

A Remarkable Case of Recovery after an Operation for the Removal of an Ovarian Cyst.

BY S. T. DAVIS, M.D., LANCASTER, PA.

Perhaps in these days of triumph for antiseptic surgery and especially when the name of Keith is coupled with seventy-eight successful operations for the McDowell triumph without a single death, a recital of the following case will only appear the more interesting:—

On November 25, 1875, I was requested by Dr. Livingston to meet him in consultation at Silver Springs, Lancaster County, Pa., in the

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case of Mrs B., whose history I give as elicited at the time, and since kindly furnished me by Dr. Livingston in writing.

Mrs. S. B., aged 27; native of the place; married; mother of two children, youngest four and a half years old. Mrs. B. is the youngest of a family of four children; her family history is good. Began to menstruate at the usual age; always been regular, though painful at times.

She states that some time after the birth of her first child she thought she noticed a slight enlargement in the right iliac region, not painful, which disappeared during her second pregnancy.

Dr. Livingston says: "I first saw Mrs. B., February 25, 1875. I found her occupying an easy chair; very anæmic in appearance; suffering intense pain in the head and lumbar region; complete loss of appetite; bowels constipated, and the urine scanty and of high specific gravity. Pulse 110, and feeble; abdomen presenting the appearance of that of a woman at the end of the eighth month of pregnancy.

"Patient states the enlargement began about a year and a half ago, in the right side, and increased gradually. She has been under treatment of two physicians, who pronounced her disease dropsy, and prescribed active diuretics, without affording her any relief.

"I suspected encysted dropsy, and prescribed elixir of bark, iron, and strychnia, under which her general health improved somewhat, but the abdomen was evidently enlarging."

Her present condition, Nov. 25, 1875, though evidently better than when Dr. Livingston took charge of her case, is one of great emaciation. Abdomen very much enlarged. Dulness on percussion over the whole site of enlargement. The sound enters the uterus to the depth of two and a half inches. The uterus is movable in all directions. More easily toward the left than the opposite side. No bulging in Douglas's cul-de-sac.

Diagnosis.—A unilocular cyst, either of the right broad ligament, or an ovarian cyst of the ovary of the same side. The distinct impression made by the wave on percussion, inclined us to the opinion that the case was one of serous cyst of the broad ligament. The importunities of the patient to be relieved of her suffering, and our desire to arrive at a correct diagnosis, caused us to decide to tap her.

December 18. We met for that purpose. Found the condition of the patient unchanged, except that her abdomen had enlarged some since my last visit. After withdrawing the urine, I proceeded to tap her in the usual manner, entering the trocar about midway between the umbilicus and symphysis pubis. Drew off, without any difficulty, twelve pints of a clear non-albuminous fluid, specific grav-

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ity 1010. Closed the wound with adhesive plaster; applied a compress and bandage; placed the patient on her back, and enjoined perfect quiet.

20th. Saw the patient with Dr. Livingston at 3 P. M. She has been quite comfortable since the operation. Abdomen perfectly flat. On examination, no signs of a cyst wall or pedicle can be discovered. We now feel fully convinced as to the correctness of the diagnosis, serous cyst of the broad ligament. Patient says she feels better today than at any time since her trouble began.

January 7, 1876. Saw patient again, with Dr. Livingston, at 3 P. M. Is quite weak, and complains of a great deal of pain in the right iliac region. A tumor the size of a child's head can be felt through the abdominal walls in this region.

March 4. Met Dr. Livingston again. The tumor has been gradually enlarging. Patient presents the appearance of a woman in the seventh month of pregnancy. Appetite poor; bowels constipated; urine scanty, and of high specific gravity. Suffers from want of sleep, owing to pain. Anodynes are indispensable now, to insure a few hours' rest.

Decided to tap her again on the 7th instant. Met at the appointed time and tapped her as before, introducing the trocar at, or near, the same point, as at the last operation. The fluid withdrawn was thick, viscid, of a greenish color, and contained such numerous and large floccula of albumen, as to constantly clog the trocar—though it was a large one, half-inch diameter. Eight pints were obtained, leaving at least three pints within the cyst. Closed the wound as before, and after applying a compress and bandage, put the patient to bed. The character of this fluid changed the whole phase of the case, inasmuch as it was undoubtly ovarian. To satisfy myself on this point, I filled an ounce vial with the fluid removed December 18, 1875, marked it No. 1, and also a similar bottle with the fluid removed at the last tapping, and marked it No. 2, and sent them to Dr. T. M. Drysdale, of Philadelphia, who deserves a great deal of credit for the zeal he has manifested in the scientific investigation of abdominal fluids, and to whom belongs the discovery, I believe, of the "granular cell." In reply I received the following note:—

PHILADELPHIA, PA., March 13, 1876.

S. T. DAVIS, M.D.

Dear Sir.—I have examined both of the fluids you sent by express. The clear fluid, marked No. 1, is undoubtedly from a cyst of the broad ligament. The second specimen, marked No. 2, is ovarian fluid. Your first tapping probably emptied the peritoneal

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cyst, which has not filled again, but the ovarian tumor has taken its place.

Yours, very truly,

T. M. DRYSDALE.

After the last tapping the patient got along without any untoward symptoms, gaining strength and appetite, until about three weeks after the operation, when what seemed to be an abscess formed at the point of entrance of the trocar, and in a few days opened and discharged a portion of the contents of the cyst. Through this fistulous opening air entered the sac, pus formed, and was discharged constantly. The discharge was profuse, thick, creamy, and very offensive. This exhausting process was kept up from the 10th day of April to the 7th day of September, the day of the operation. The tumor remained about the same size, and contained about three pints of pus.

August 28. I received a note from Dr. Livingston, stating that Mrs. B. was evidently wearing out and sinking under the constant drain from her system, and if anything more was to be tried for her relief, it must be done speedily, or death from prostration would soon close the scene.

I met him on the 30th, and after carefully considering her case in all its bearings, I determined to endeavor to remove the tumor, though fully satisfied that there must be extensive adhesions, and that the prospects of a fatal termination were more than probable. The patient and her friends were made fully aware of the nature and gravity of the operation. Her only reply was that she was willing to submit to anything which had for its object her radical cure or relief. Thursday, September 7th, at 3 P. M., was accordingly fixed for the operation.

Medical gentlemen present: Dr. T. M. Livingston; Dr. M. S. Davis, of Millersville; Dr. A. J. Herr, of Lancaster; Dr. D. H. Shenk, of Rohrerstown; and Mr. Eli H. Witmer, one of my students.

Condition of Patient.—Bowels moved twice yesterday, after a dose of oil. She weighs about eighty pounds, and is greatly emaciated. Pulse 115, and almost imperceptible; temperature 101° F. No nervous excitement whatever; is very hopeful, though told she might not live to see another day. The urine was withdrawn by the catheter and the patient placed on the table. Drs. Shenk and Herr administered the anæsthetic, and when the patient was fully under its influence, I pressed about one pint of pus through the fistulous opening, and then began the operation by making an in-

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cision along the median line of the abdomen, beginning at the opening and ending at or near the symphysis pubis, through the skin and superficial fascia.

A second incision was then made from the opening to a point just to the left of the umbilicus. The sheath of the rectus was then divided over a director, throughout the incision, and the peritoneum sought for. After several fruitless efforts to distinguish what was peritoneum and what was cyst wall (for, as was supposed before, there was complete adhesion of the parts) the membrane presenting was taken up, the director passed under it and divided, thus exposing what all present decided to be the cyst wall. The next step in the operation was to find a spot where there were no adhesions existing between the cyst wall and the peritoneum. The search after such was in vain—none was found. I now determined to enlarge the abdominal incision, and extend it to the extent of two inches above the umbilicus, and again a free cyst surface was sought, without success. It was apparently firmly adherent to everything with which it came in contact. What was to be done? An exploratory incision had been made, and the practice of older and more experienced surgeons told me to close up the wound and leave the patient to her fate. I could see none but a speedily fatal termination as the result of such a course. Attempt the enucleation of the tumor with such extensive and highly vascular adhesions! Fatal hemorrhage might take place and death ensue before the operation could be completed if it were possible to do so.

I decided to make an attempt to separate the adhesions, and after much difficulty succeeded in freeing the upper and lateral portions of the tumor, and withdrew the upper third through the abdominal walls. The hemorrhage, though considerable, was not as much as I anticipated, no vessels requiring ligation. I now explored the cavity of the pelvis, and sought for a pedicle and pelvic attachments. To my dismay I found the whole mass so firmly bound down that it was utterly out of the question to attempt any further separation of the tumor from its adhesions; one-third of the tumor was thus firmly adherent to the pelvic organs, in fact, inseparable. To add to the embarrassment, a rent in the cyst wall was filling the abdominal cavity with pus. The operation had now lasted forty minutes; the patient was more dead than alive; the radial pulse was scarcely perceptible; the skin was bathed with a cold, clammy perspiration, and the assistants were beginning to show by their anxious faces that the contest between surgery and death was about to result in a victory for the latter. Here was another dilemma, and no time to spare. The same questions came as before. I called for the clamp.

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It was Atlee's, and too small for my purpose, and I had none other. The next resort was a whipcord ligature, placed just above the abdominal walls, and the protruding part of the cyst was then cut off, the stump brought to the lower angle of the incision, and a strong silk suture passed through the abdominal walls immediately above it. The abdominal cavity was then cleansed of pus and blood, the remainder of the wound was closed with the interrupted suture, and adhesive strips passed round the body. The stump was covered with Monsell's salt; lint, moistened with carbolized oil, was placed over the whole length of the wound, a compress and bandage over all, and the patient put to bed, the operation lasting one hour. Ordered thirty drops McMunn's elixir of opium as soon as she could swallow, and brandy, in small though oft-repeated doses, as required.

Dr. L. remained with her until she had recovered from the anæsthetic, and personally administered stimulants, taking notes of her condition. From the same I copy the following: "5.30 P. M., patient recovered from the anæsthetic; pulse 80; temperature 98°. Complains only of a burning pain in the wound; gave thirty drops of elixir of opium as ordered. 6 P. M., pulse 92; skin warm and moist. Gave half teaspoonful elixir opii, and every hour a dessertspoonful of brandy.

"9 P. M., pulse 96; temperature 98.8°. Ordered the brandy to be given every hour or half-hour as indicated, and the elixir opii often enough to relieve pain and induce sleep, when I left her for the night.

"*September* 8, 7.30 A. M. Patient had a comparatively comfortable night; pulse 112, and skin moist. Directed a teaspoonful of brandy every hour, and elixir as required for pain."

I saw the patient with Dr. L. at 3 P. M. Condition same as in the morning. I passed a strong needle through the stump of the cyst, just above the whipcord ligature, in order to prevent retraction of the remaining portion of the tumor in case the abdomen became tympanitic. Wound doing well. No pain; no tympanitis. Bladder to be relieved by means of the catheter night and morning. In addition to this treatment, quin. sulph. gr. j every two hours was given. 9 P. M. Condition same, excepting pulse marks 120; temperature 101°. Treatment continued for the night.

9th, 7.30 A. M. Patient slept so well that the brandy and other nourishment were not given regularly through the night, and, in consequence, the pulse ran up to 140, irregular and feeble. A tablespoonful of brandy soon decreased the number of pulsations, and increased the volume of the pulse. Has no pain. 3 P. M. Pulse 120, temperature 102°. Says she feels well and hungry.

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10*th*, 8 A.M. Pulse 96, temperature 100°; passed a comfortable night; no pain. Passes urine without difficulty. 3 P.M. Abdominal wound uniting favorably, and the outer surface of the cyst wall uniting with the abdominal walls below the ligature. Pulse 96, temperature 101°. Continued the treatment.

11*th*, 8 A.M. Patient rested well without any opium. Pulse 90, temperature 100°. 3.30 P.M. Pulse 88, full, soft, and regular. She is gaining strength. Dressed the wound with carbolized oil as before. Very little suppuration. Brandy to be gradually suspended, and beef-tea and milk to be given in small quantities.

12*th*, 7.30 A.M. Pulse 88; temperature 98.8°. Patient slept well, is cheerful and complains of nothing but feeling hungry. Bowels twice moved without any inconvenience. 3 P.M. Pulse and temperature same as in the morning. Wound doing well. Ordered the following: ℞. Quin. sulph. grs. xvj; tinct. ferri chlor. f℥iij; syrupus simplex, q. s. fl. ℥ij. M. Teaspoonful every four hours.

13*th*, 4.30 P.M. Pulse 80; temperature normal. Bowels moved during the night. Ordered morphia acetas, gr. ¼, fearing diarrhœa. Medicine and nourishment well borne. Wound discharging profusely from the junction of the upper portion of the cyst or pedicle, and the abdominal walls. Carbolic acid solution freely used. Salicylic acid to be dusted over and around the stump before applying the carbolized oil dressing.

14*th*, 4 P.M. In dressing the wound, Dr. L. found the discharge profuse. Patient rested well. Pulse 90; temperature normal. The husband, who proves to be an excellent nurse, is directed to remove the accumulation of pus from around the stump every three hours and apply the antiseptic solution. The whole wound to within half an inch of the stump is completely sealed up.

15*th*. Condition same as day before.

16*th*. Pulse 78; temperature 100°. I removed all of the sutures, and the whip-cord surrounding the cyst. We are now enabled to explore the interior of the remaining portion of the cyst. Depth from top to bottom two and a half inches. That portion where the adhesions were not disturbed is secreting pus of a similar character to that which it did before the operation. The intestines being comparatively free from gas to-day, the remainder of the tumor can be distinctly seen and felt occupying the right iliac fossa. I washed the cyst cavity thoroughly with carbolized water, and injected a saturated solution of nitrate of silver, which was allowed to remain five minutes or more. Upon careful examination I find the neck, or constricted portion of the tumor, and the abdominal walls are united, except at one point on the left side, where a small probe can be in-

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troduced between the outer surface of the cyst and peritoneum. Ordered the inner surface of the cyst to be cauterized with the solid stick of nitrate of silver, daily, and the wound to be kept clean with the carbolic acid solution. After each dressing the whole of the suppurating surface to be sprinkled with salicylic acid.

18th, 3 P. M. Patient feels comfortable, sleeps well, has a good appetite, and is gaining strength. Bowels moved by an enema this morning. Removed a portion of the stump, which is without sensation, though very vascular. A large sponge-tent was introduced into the cavity of the cyst after each dressing, in order to prevent the abdominal walls from constricting the neck of the tumor, to enable us to better explore the interior, and to heal the cavity from the bottom by stimulating granulation. The patient to be allowed to resume solid food gradually.

20th, 3 P. M. We were somewhat surprised upon removing the dressing to find a very perceptible increase in the size of the tumor, presenting quite a prominence in the right iliac region, extending beyond the median line of the abdomen. On pressure, a few drops of pus escaped from the opening, into which a probe was passed on the tenth day. I enlarged the opening with a bistoury, and then made firm pressure over the iliac prominence, and about four ounces of pus escaped, similar in character and appearance to that contained in the cyst before the operation. Directed the pus to be pressed out twice a day. Made a careful examination of the vagina in order to detect the presence, if any, of pus in the true pelvis, but no fluctuation was detected.

24th. Pulse and temperature normal to-day. Is gaining strength; appetite and digestion good. About an ounce and a half of pus is discharged from the outer surface of the cyst daily; the walls becoming thinner, and inner surface sloughing off at each dressing. An examination per vaginam to-day reveals the fact that there is pus seeking an outlet through Douglas's cul-de-sac. Puncture to be made and tube inserted to-morrow.

25th. Patient rested well all night, and, on awaking this morning, found that about two ounces of pus had been discharged per vaginam during the night. On examination an aperture about the size of a crowquill discovered in Douglas's cul-de-sac, through which the pus was discharging. Enlarged the opening, and ordered it to be kept open by the daily introduction of a female catheter. To-day there has been much less discharge from the upper opening.

30th. Still a small quantity of pus can be obtained by pressing the cyst, and very little discharge per vaginam. Cut away the

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remainder of the stump. The cyst wall is becoming very thin and less vascular.

October 5. Patient is up and moves about. Says she feels better than at any time within the last two years. The walls of the cyst are getting so thin as to be barely felt through the thin abdominal walls. The discharge of pus from the fistulous opening at the neck of the cyst has ceased, and the opening in Douglas's cul-de-sac is left to itself.

15*th*. The improvement in the general condition of the patient since last report is all that can be desired. No trace of the cyst walls can be detected. The opening in the abdomen is so small as to admit only an ordinary-sized probe, and that to the depth of about one-fourth of an inch. It is filled with healthy granulations, and a few drops of pus are discharged in the course of a day and night.

November 5. The fiftieth day after the operation the patient is discharged well.

I cannot conclude this report of so interesting a case without calling attention to several important points in its history:—

1st. Had the withdrawal of the fluid contained in the cyst of the broad ligament anything to do with so rapid a development of the ovarian cyst which followed? That the first fluid was encysted, and that it was from a cyst of the broad ligament, is a question admitting of no doubt in my mind whatever. After this fluid was removed, a most careful examination did not detect the presence of a cyst wall or any enlargement of the ovaries. Notwithstanding, in twenty days after the operation, upon examination, a tumor the size of an ordinary-sized cocoanut could be readily mapped out in the right iliac region; and which tumor proved to be ovarian without doubt.

2d. The formation of an abscess thirty-three days after the second tapping, and the establishment of a fistulous opening, which communicated with the interior of the cyst, and through which air entered and pus was discharged daily for five months. The complete adhesion of the tumor to everything with which it came in contact; the debilitated condition of the patient at the time of the operation, and the possible removal of only about one-third of the growth, and the rapid recovery of the patient under these manifold unfavorable circumstances, but establish additional and positive evidence that the operation by abdominal section in ovarian disease is justifiable in any condition, short of articulo-mortis; and now, since Lister has taught surgeons that cleanliness is even more than godliness, and that the product of coal tar in the form of that invaluable

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preparation known as carbolic acid has the power to destroy those invisible molecules in the atmosphere which, when coming in contact with a healthy serum-secreting wound, produce inflammation, suppuration, and consequent loss of tissue, the operation is still more justifiable, even under the most unfavorable conditions. Certain it is that hundreds of these poor unfortunates have been abandoned after making an exploratory incision and left to their fate.

To-day, May 17, 1880, nearly four years after the day of the operation, Mrs. B. enjoys good health, menstruates regularly, and suffers neither ache nor pain referable to her former disease.

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REPORT OF THE LYCOMING COUNTY MEDICAL SOCIETY.

DIPHTHERIA has prevailed in our city and through a greater portion of the county as an epidemic for the last two years; sometimes assuming a mild form, often taking on a malignant character from the onset.

I will only relate two of the latter, which came under my care. I was called July 17, 1879, to visit C. S., aged eight years, who was seized with a malignant form of the disease. The exudation extended over both tonsils, soft palate, uvula, and through the Schneiderian membrane of both nostrils. It was with great difficulty that he could swallow even water. On the fourth day the membrane extended down into the air passages, bringing on the worst form of croup. The breathing became so difficult that it was impossible for him to assume a horizontal position. He sat upright in bed and was obliged to be fanned constantly for several days and nights.

Treatment internally, syrupus scillæ, ipecac., and tinct. opii camph.; quinia and tinct. ferri chloridi, milk diet, alternated with essence of beef and inhalation of the steam of hot water day and night. Gargled with a saturated solution of chlorate of potassa, carbolic acid, and tinct. ferri chloridi. Kept the throat well irritated with liniment and coal-oil. After the croupy symptoms yielded, I gave him milk-punch and egg-nog. He made a good recovery without any unfavorable sequelæ.

Oct. 30, 1879, I was called to visit G. K., aged thirteen years, suffering from a severe malignant form of diphtheria. The exudation covering both tonsils, velum, palate, and uvula extending through both nostrils, and taking in a gangrenous action. The odor from the disease was very offensive. He soon ran into a typhoid condition, and became entirely deranged, not recognizing his mother or any members of the family, and constantly talking incoherently, wanting to go home, etc.

Treatment.—Tinct. ferri chloridi, quinia, milk-punch, egg-nog with brandy, essence of beef, etc., internally.

Gargle.—

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		Grams.
℞.	Acid. carbol. gtt. ij ;	12
	Tinct. ferri chloridi, f℥j ;	4
	Aquæ font. f℥j.—M.	32

Nov. 8th. The sloughs have all disappeared and he is convalescing rapidly.

His recovery was slow, and his mind quite impaired for some length of time.

I was called Sept. 13, 1879, to visit G. U. L., aged sixty years, who was laboring under very severe pain from fistula in ano; opened the abscess with a bistoury which discharged over a pint of very offensive pus. After pressing out the remainder and syringing out the fistulous opening I discovered that it extended into the bowel. The patient had an enlarged liver and a sympathetic affection of the heart, consequently was not a case for an operation for radical cure. I therefore commenced injections daily of the tinct. of iodine diluted with water. First, one part of iodine to four of water, increasing the quantity of the former until it was injected in equal parts of each. In six weeks the opening was entirely obliterated and he has had no return of it since. He was enabled to attend to his duties daily during the whole time he was undergoing treatment.

I have attended a number of cases of pneumonia, pleuro-pneumonia, and typhoid pneumonia, during the last year, at different ages, and have witnessed the best results from the use of fly-blisters, and in no case have I used alcoholic stimulants except in elderly persons, and then only to accomplish for the time what nourishing diet failed to do. As soon, however, as reaction took place all alcoholic stimulants were abandoned. I am satisfied from long experience in the treatment of the above disease that too much is expected from the stimulating system.

I have also treated a great number of cases of rheumatism, acute, subacute, and chronic in form, and have been successful in all. None continued longer than three weeks, and I did not use salycilic acid in a single instance.

My experience in the use of the above named article has not been as successful as some of my medical brethren have led me to think it was in theirs.

THOMAS LYON, M.D.

WILLIAMSPORT, PA.

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JOHN S. CRAWFORD, M.D., 1808–1879.

The Lycoming County Medical Society has sustained an irreparable loss during the past year by the death of one of its oldest and most honored members, Dr. JOHN S. CRAWFORD. On the evening of December 15, 1879, while on his way to visit a patient, in the darkness, his carriage collided with a moving train on the Philadelphia and Erie Railroad, by which he was thrown beneath the cars and instantly killed. Dr. Crawford was born at Orwigsburg, Schuylkill County, November 17, 1808, of Scotch-Irish parentage, and at the time of his sad death was seventy-one years and twenty-eight days old. Like many of the youth of that early day he had to struggle in the battle of life, and his earlier years were devoted to hard work. After securing a fair education he commenced the study of medicine under a competent instructor, which he pursued diligently until he was qualified to enter Jefferson Medical College, Philadelphia, whence he graduated in March, 1838. He at once resolved to engage in the profession he had chosen, and first settled at Cambria, Luzerne County, and commenced the practice of medicine, which he followed with varying success for about ten years, when he removed to Williamsport in 1849. At that time Williamsport was an unpretentious borough of less than five thousand inhabitants, and gave no promise of the rapid growth which has marked its history during the past fifteen years. He at once commenced practice, and by close attention, care, and punctuality business grew rapidly, and as the population increased, the field of his practice increased also, until his services were in constant demand.

Devotedly attached to his profession, it was his constant aim to promote its interests and elevate its standard, and he labored incessantly to that end. He took an active interest in all professional organizations, whose objects were the advancement of medical science and the improvement of professional character. He was a member of the American Medical Association, and frequently attended its meetings as a delegate; of the Medical Society of the State of Pennsylvania, and was its president in 1871. He also faithfully served as president of the Lycoming County Medical Society for five years. During the war he was appointed State examining surgeon for drafted men, and in 1863 was appointed an examining surgeon for the pension department, which he held at the time of his death.

Dr. Crawford was conscientious in the belief that the profession of a physician was one involving more than ordinary responsibilities, and he had a high appreciation of the confidence reposed in those who were called upon to minister to suffering humanity. He was a man of few words, and moved through the world smoothly, never taking part in the petty jealousies and bickerings which too often mar the career of professional men, because he believed that to indulge them was not calculated to elevate the moral standard that should be aimed at by those who seek to attain eminence in their calling, and merit the confidence of their fellow men. While in the midst of the whirl and excitement of a busy life he d d not forget

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his religious duties. He early attached himself to the Methodist Church, and was a consistent and devoted member. For years he held some office of trust, and always took a deep interest in the promulgation of the Gospel, and contributed freely of his means for its advancement. A devoted husband and father, strictly upright in his intercourse with his fellow-men, an ornament to the church, to the medical profession, and society, and combining all the attributes of the Christian gentleman and the faithful physician, it can be truly said of him that he was a good man, and literally died with the harness on; he was stricken down suddenly and instantly killed while in the pursuit of his professional duties. Sadder circumstances rarely surround the close of a well-spent life, or cast a more melancholy shadow over the bright hopes and anticipations of family and friends; but the poignancy of grief is assuaged by the reflection that he left a character worthy of emulation by his professional brethren, and a memory which will be long cherished by the community in which he lived.

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REPORT OF THE MIFFLIN COUNTY MEDICAL SOCIETY.

We had during the past year considerable typhoid fever, something from which we have been comparatively free for several years. It commenced in the adjoining township north of Lewistown, in September, invading the town in October. There were about seventy-five cases in all, fifty in township, and twenty-five in town. It was of the true type, and as far as I know, the usual plan of treatment followed. I used sulphurous acid in *one* case, which ran a more satisfactory course than any other I treated, but it being the last case I had, there was no further opportunity of testing its usefulness. And again, it being among the last cases, the disease may have spent its force, and this case may have been of a milder form. I believe, however, if we could always procure pure sulphurous acid (but it is of such an unstable character, that it can hardly be depended on) that it would be the acid we want in typhoid fever.

I append papers from Drs. Brown and J. S. and A. Harshberger, which we respectfully submit.

A. H. SHEAFFER,
Secretary.

Dr. J. S. Harshberger, of Milroy, reports as follows:—

I was called at midnight of January 20, 1880, to see Mrs. P., aged between 45 and 50 years. I found her suffering very violent pain, in the region of the uterus, and extending over the entire lower part of the abdomen. She had been sick from the night before. When she retired on Sunday evening, she was attacked with a severe chill. (She was menstruating at the time.) After the chill, followed pain, which continued all Sunday night, Monday, and Monday night. At 12 M., when I saw her, she was bathed in a cold clammy perspiration, almost pulseless, and moaning in great agony. She had taken by the mouth, during the forepart of Monday night, two ¼-grain powders of morphia, at 3 hours' interval without any relief. She was sick at her stomach, *she* thought, from the morphia. I at once inserted ¼ gr. of morphia in the skin of her forearm. Applied external heat to the extremities, my impression being that the trouble was uterine colic, and that she would soon be relieved. After

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waiting for one hour, and finding she was not better, I inserted ¼ gr. of morphia again into the other forearm. She still continued almost pulseless and cold. Again waiting an hour after the last dose of morphia, and finding her beginning to become slightly easier, I left. Before quitting the house, I left two powders of pulv. opium and camphor, one to be taken in four hours from the time the last morphia was inserted, providing she still had pain, the other in four hours from the first, if the pain continued. When I retired, I did not think she would be obliged to take the opium and camphor, feeling almost sure the morphia I had inserted would relieve her. I thought that when I returned in the morning, I would find her resting quietly; but I was disappointed, when I reached her bedside, I found her as bad, if not worse, than when I first saw her.

She had taken both the powders of opium and camphor, but had vomited them up soon after taking them. Her mouth and tongue were dry, her pulse could scarcely be felt at the wrist, though she was strong and could toss about in the bed, and could speak out loud and clear. She had some sickness of the stomach, the skin was cold but bathed in perspiration; she had got but little relief during the night. I again gave her ¼ grain of morphia hypodermically, continued the heat to her body, and gave her whiskey every hour, from one to two tablespoonsful; she was unable to take any nourishment. Her abdomen was somewhat enlarged and tender. Her husband came after me about 1 P.M., stating that his wife was no better. I went with him and found she had received no relief from the morphia given, but that the pain, if anything, was increasing. I requested her to place her hand on the place of the most severe pain, she placed it on the centre of her abdomen; she replied to my inquiry, that she had pain all through her bowels; her abdomen was at this time a good deal enlarged and quite hard. The patient kept turning from one side to the other almost constantly; when she reclined on her back, the pain was increased; she was pulseless and cold; her voice and the motions of her body were strong. A neighboring lady was applying Indian-meal poultices, but without any relief. I again injected into the skin of the abdomen ⅓ of a grain of morphia, this was done about 2 P. M. At 5 P. M. I called and found her still more restless, and no relief from pain; at this visit I gave her nothing. At 7 P.M. I again called, accompanied by my father; when my father went to her bedside, she ceased her moaning long enough to say, "Is this you, Doctor? I am glad you have come." (Father had attended her previously more than I had.) We found her much the same as she was at my visit at 2 P. M., suffering great pain, pulseless, covered with cold clammy perspiration, turning often from side

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to side; I also noticed quite a difficulty in her breathing, it was short and quick, but not labored; I also noticed that her face was slightly cyanosed. We gave her 5 grains of calomel on her tongue dry; and prepared some belladonna to be given every two hours. This was at 7 P. M., in about half an hour she sat up in bed, saying I am going to get out, when an attendant took hold of her, asking her to lie down, she made several clutches with her hands in the air, and fell back dead, black colored blood issuing from her nose and mouth. I was very anxious to make an autopsy, and made every endeavor to obtain permission, but was refused. Cases of this nature physicians sometimes meet with, the diagnosis remaining a mystery. My treatment was for the relief of pain, but without success.

Before closing I will mention a case of early menstruation. Carrie C., aged 9 years, weight 90 pounds, quite tall, full broad chest, well developed in every way, has menstruated three times in regular succession. I report this on account of its rarity, nine years being very young for the development of that function in this climate.

Dr. Jas. M. Brown reports:—

My practice during the past year has not been marked with much more than what is ordinary to this valley. During the fall malarial fevers and diarrhœa prevailed extensively; chiefly confined to that portion of our field lying contiguous to the Juniata River.

Many cases of the malarial fever were singularly persistent, requiring large doses of quinia to break up the paroxysms, with strong tendency to recur at intervals of from a week to ten days. For these recurring cases I usually prescribed, with very good effect, arsenic in combination with compound tinctures of iodine and cinchona. This not only promptly arrested the paroxysms but the effects were more permanent than quinia alone.

Diarrhœa prevailed in about equal proportions amongst children and adults, although it first manifested itself amongst children and young adults, and was of more persistent nature. Opium in combination with small doses of ipecacuanha or tartarized antimony, was used after freeing the bowel of all foreign matter by mercurials or saline draught.

Of a gang of some twelve or fifteen railroad laborers who during the fall months worked through the week in the neighborhood of Newton Hamilton, near a locality reported by Dr. J. T. Mahon, in *State Transactions* of 1878, as infected with typho-malarial fever, all were attacked with diarrhœa; about one-half of the number that came under my care suffered also with mild fever of typho-malarial

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form. Quinia and vegetable astringents were effective remedies though convalescence was slow.

In September I was called to see Mr. J. M., æt. 76, a farmer who had been suffering from what he supposed to be, and was treating by home remedies, an ordinary attack of diarrhœa. I found him to be suffering from dysentery, greatly prostrated, with great frequency of pulse, severe retching, tenesmus, and tormina, wakefulness and delirium, with almost constant evacuations of from half a drachm to a drachm each of mucus, lymph, and blood. After giving hydrarg. cum creta with pulv. rhei rad., followed by a saline draught, I ordered pulv. opium .03 gram, plumbi acetas .13 every three hours. The opium was increased from day to day and the lead supplanted by other mineral and vegetable astringents; injections were given and immediately rejected; ice applied to the rectum, fomentations to the abdomen, until at the end of three weeks my patient was taking two grams of opium daily, and I had almost exhausted the routine of treatment. Dr. Maclean's ipecacuanha treatment, as given in Flint's Practice, was resorted to only to bring disappointment. In addition to the former symptoms an anal abscess formed, large ulcerated patches appeared in the mouth and over the tongue. My patient was now little more than a living skeleton. About this time an article from the *British Med. Journal*, on the use of oxide of zinc in diarrhœa and dysentery, fell into my hands and I determined to try it. Omitting all other astringent remedies and reducing the opium, I prescribed zinci oxidum 3.50 grams, sodæ bicarb. .50 grams, to be mixed and divided into four powders, taken one every six hours. On my return next day I found a change for the better; continuing the treatment at the end of four days I had entirely withdrawn the opium—tenesmus, retching, etc., of only rare occurrence, stools assuming a natural appearance. The administration of the zinc formed a coating by contact over the ulcers in the mouth thus affording great relief, the anal abscess rapidly healed, so that at the end of eight days from the time of first exhibiting the zinc my patient was rapidly convalescing, and needed only such remedies as would assist in restoring from extreme prostration. I have intentionally omitted hygienic influences, as they were all the most fastidious could desire. The result I consider highly satisfactory, inasmuch as the case was one of great violence, of considerable duration, in which other methods of treatment had been of no effect; therefore, while not desiring to regard it as exclusive treatment, oxide of zinc *deserves* to be more widely known as useful in such cases.

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In obstetrics I met with a case of contracted pelvis in which all efforts at delivery were ineffectual and resort was had to craniotomy. Dr. A. Rothrock kindly shared in the responsibilities of the case. Following her confinement this same patient suffered from crura phlebitis. The local treatment being in some respects novel I give it. Stimulating liniments were freely applied and the affected limb wrapped in a large sheet of rubber, packed in hot bran in a hinged fracture box, and suspended by cords and pulleys from the ceiling. The advantages gained were comfortable position of the limb, allowing movements of the body with but little pain, while the hot bran is held in place sufficiently firm to make equal pressure over the limb. The rubber retains the heat and promotes insensible perspiration. I have also used the rubber with highly beneficial effects made in the form of a sleeve, and worn during the day over the affected joints in articular rheumatism.

Dr. A. Harshberger reports eight cases of typho-malarial fever treated with bichloride of mercury and opium:—

December 1, 1879, I was called to visit the family of W. W., in Brown Township, Mifflin County, Pa. On arriving at the house I found eight cases of typho-malarial fever with symptoms well marked. Their ages ranged from twenty-two down to four years. The symptoms were: headache or pain in the back part of the head and neck; tongue dry and brown; pulse ranging from 120 to 140 beats per minute; urine scanty and high-colored; tenderness in the right iliac fossa; petechial eruption well developed over the breast and abdomen; diarrhœa rather troublesome, with considerable griping pain, evacuations recurring from eight to twelve times in twenty-four hours. The patients were all simultaneously attacked, with symptoms differing very little in the main. I gave them all the same treatment, modified, of course, according to circumstances in their several conditions and ages. The treatment consisted of bichloride of mercury and opium. To the oldest I gave bichloride of mercury rubbed up with white sugar in the proportion of—

		Grams.
℞.	Hydrarg. bichlorid., gr. 1–30.	.002
	Sacch. alba, gr. ii.	.12

dropped on the tongue dry, followed with a little water, every four hours, and from one to two grains of opium (.06–.12) at night, which kept the bowels quiet and gave the patient a good night's rest. I followed up this treatment for ten days, when diarrhœa ceased, after which the mercury alone was continued up to the sixteenth day, when all my cases were convalescent, and all made a rapid recovery.

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I have been induced to report the above cases and treatment because the result was so good, and to me, at least, new. I gave them no quinine, nor any of the preparations of cinchona, nor any other tonics, as I did not deem it necessary, as they all, after convalescence set in, were blessed with very good appetites and required a good cook more than medicine.

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REPORT OF THE MONTGOMERY COUNTY MEDICAL SOCIETY.

THE Sanitary Committee appointed by the Montgomery County Medical Society offer no apology for presenting the shadow instead of the substance of a report.

The stolid indifference with which their earnest appeal for data from which to compile a report was received by the members, with but few exceptions, is not creditable to so intelligent and otherwise enterprising a body of men.

Montgomery, one of the southeastern counties of Pennsylvania —bounded on the north by Berks and Lehigh, on the east by Bucks, on the south by Philadelphia and Delaware, and on the west by Chester—presents nothing in location or physical features or general surface indications that would impress the mind of the sanitarian unfavorably.

The rolling and in some instances decidedly hilly character of the surface form numerous water-courses, whose streams are rapidly and easily swollen, rendering a perfect drainage to the entire county. Few counties have less lowlands and swamps than Montgomery.

At least nine-tenths of the area of the county (which is 450 square miles) is under a high state of cultivation. All these favorable physical conditions render this section of the State comparatively free from miasmatic diseases.

True, along some of the water-courses there have been some malarial affections during the past year of a remittent type, but in the main, miasmatic diseases were the exception rather than the rule, as years ago.

Epidemics.—A very general epidemic of measles has scoured the county during the past four months, and in some instances nearly decimated the public schools of Norristown and some of the surrounding townships. Although the type of the disease in this epidemic was a pronounced one in all its features, yet the mortality was exceedingly small. In some few instances infants succumbed to the violence of the fever, together with the intensity of the accompanying catarrhal symptoms. The radical change in the

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hygienic management of this affection during the past twenty years deserves a passing notice at least. Permitting a child to drink freely of cold or ice-water, while affected with measles, was to seal its fate according to the time-honored theories of mothers and doctors. Draughts of hot teas, warm baths, together with being rolled in blankets, on such a hot May day as this upon which I am now writing, with the thermometer at 94° F., was, and in some cases is still, regarded as wholesome treatment, for fear that the eruption would "strike in," as an anxious mother remarked to me this very day.

Could any thing be more irrationaland, I may add, inhuman, than such treatment?

A small portion of the "upper end" of the county was visited by a very malignant and fatal form of *diphtheria* during the past winter. In some cases, families were deprived of all their children; and a loss of two or three in a family of five or six children was no uncommon thing. One physician reported an average mortality of 25 per cent. Here is a field for study and for labor for the progressive and scientific physician.

How can such heavy mortality be reduced? This disease like other zymotic diseases is in a certain sense preventable. Its virulence is modified by attendant circumstances such as air, sunlight, cleanliness, emanations from cellars, cesspools, sewers, etc., if it is not generated by them.

The writer a few years ago treated some thirty cases within a radius of one hundred yards, in a low, flat portion of Norristown, where the drainage was very imperfect. A careful inquiry into the history of the first cases revealed no importation of contagion; and after carefully weighing all the evidence, the conclusion was arrived at, that the disease was spontaneously generated in the locality in which it prevailed. The disease began among the colored people, who, in this instance, had very crude notions of cleanliness and hygiene in general. There were six deaths out of thirty cases—a mortality of 20 per cent.

During the same season the writer had some forty other cases with but two deaths in other portions of the town. The greater mortality in the first thirty cases mentioned was attributed to the greater virulence of the disease superinduced by the locality and surroundings of those attacked.

The treatment most effective was the external application of ice in bladders to the throat, the exhibition of salicylic acid internally, and, in some instances, of fl. extr. veratrum viride as an anti-

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pyretic, together with chlorate of potassa and tr. of the chloride of iron for the local manifestation of the disease upon the fauces. Sulphate of quinia was administered in full doses whenever there was evidence of a failure of the vital forces, and it may be added with the most gratifying results in the majority of cases.

Before dismissing the consideration of this affection it may be of interest to note that sudden death sometimes ensues in patients who have partially convalesced. Such cases of death were observed in two instances during the above-mentioned epidemics.

In one case all evidence of the disease had disappeared, and for more than a week the boy—a colored lad of 14 years—was apparently well. His pulse and temperature indicated a perfect convalescence; both sleep and appetite had returned, and were normal in every respect; the patient had walked around the house and even out of doors. One day after taking a short walk, and rapidly mounting the few steps leading into the house, he complained of a pain in the region of the heart, sank to the floor, and died in a few moments.

In a second case, convalescence had progressed so favorably that the physician had just paid his last visit, when the patient—a lad of six years—asking for a drink of water, jumped quickly upon his knees in order to put his lips to the glass, when he fell over dead, not even tasting the water.

The exertion, too sudden and too violent, was the immediate cause of death in both cases.

Oertel, in *Ziemssen's Cyclopædia of the Practice of Medicine*, vol. i. page 619, says: "But even when the disease does not produce marked constitutional disturbance, or even after a slight degree of improvement in local and general symptoms has manifested itself, the patient may be seized with fainting after some quick movement on sitting up, or without any apparent cause, and in this state die; or when recovery from this ensues, he succumbs to a following attack. Such attacks of fatal syncope may occur even in advanced convalescence." In the two cases referred to, what was the cause of *so sudden* and *unexpected* death? Evidently, too great a strain upon the heart. Such cases of death are by some authors attributed to paralysis of the heart. Oertel, in his admirable article, already referred to, makes mention of this as being the cause of the fatal syncope.

Scarlet fever and whooping-cough also prevailed, though not to such an extent as to merit especial mention.

Mortality.—The population of Montgomery County, according to

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the census of 1880, just completed, is 96,562, and the mortality for the year ending June 1, 1880, was 1228 or at the rate of 12.74 per thousand inhabitants, or one death to every 7863 persons living. This is, indeed, a very favorable showing, and speaks well for the healthfulness of our county.

We cannot fail to embrace this opportunity to make some comparisons as to the death-rate in cities with that of our county. In 1879 the death-rate for London was 30, in Paris 29, and in Berlin 24 per 1000 inhabitants. In New York for several years it has averaged about 27, and in Philadelphia, an unusually healthy city, about 18 per 1000 inhabitants. The death-rate in cities is swelled to its high figure because of increased infant mortality.

The favorable conditions essential to the generation of diseases so fatal to childhood are here most fully developed; and no argument is so potent in favor of sending children to the country during the prevalence of diphtheria, scarlet fever, cholera infantum, and other kindred diseases that owe their rapid extension to heat and other atmospheric conditions, as the mortality showing of Montgomery County, even including the boroughs.

Medical Society.—The members of the profession in this county are alive to the demands of the times, in acquainting themselves with new discoveries, new appliances, and new methods of combating disease. It is a matter of regret, however, that scarcely fifty per cent. of the practising physicians, regularly graduated, and in good standing among their fellows, have identified themselves with the *County Medical Society.*

This organization is now thirty-three years old—two years the senior of both the American Medical Association and the State Medical Society of Pennsylvania. Of the original signers of its constitution but three remain: Drs. Hiram Corson, Wm. Corson, and John Schrack, who by their punctual attendance upon its meetings, and unflagging zeal in the advancement of medical science, contribute much to the interest of the exercises of the Society as well as to the edification and encouragement of the younger members.

The meetings of the society are well attended and the following calendar for the past year will exhibit a *résumé* of its proceedings:—

MAY, 1879.

1. Selected Article, omitted because of absence of appointee.
2. Original Essay, Life, read by Dr. E. C. Leedom.
3. Discussion, Meddlesome Midwifery, opened by Dr. Hiram Corson.

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JULY.

1. Selected Article, omitted because of absence of appointee.
2. Original Essay, Salicylic Acid, read by Dr. E. M. Corson.
3. Discussion, Puerperal Convulsions, opened by Dr. J. K. Weaver.

SEPTEMBER.

1. Selected Article, "Transmission of Contagion," read by Dr. J. O. Knipe.
2. Original Essay, omitted because of absence of appointee.
3. Discussion, Cholera Infantum, in the absence of appointee, opened by Dr. Wm. Corson.

NOVEMBER.

1. Selected Article, "Burns," read by Dr. S. Nelson Wiley.
2. Original Essay, omitted because of absence of appointee.
3. Discussion, Opium, opened by Dr. Chas. Mann.

JANUARY, 1880.

1. Selected Article, omitted because of absence of appointee.
2. Original Essay, The Use of Pilocarpine in the Treatment of Puerperal Convulsions, read by Dr. Wm. Savery.
3. Discussions, omitted for want of time.

MARCH.

1. Selected Article, omitted because of absence of appointee.
2. Original Essay, omitted because of absence of appointee.
3. Discussion, Medical Electricity, opened by Dr. P. Y. Eisenberg.

The above summary while it shows the indifference with which some members treat their appointments, yet manifests some good work during the year. A short abstract from the record of the Society of a few of the papers read, may not be out of place, as they evince the character of work done at the meetings.

At the July meeting, 1879, Dr. E. M. Corson, read a paper upon Salicylic Acid

The writer after describing the process of manufacture of the drug, as well as its properties and physiological effects, discussed its virtues as a remedial agent.

The paper took issue with Prof. Horatio C. Wood, who classes salicylic acid among the non-systemic remedies, those acting locally and do not enter the blood, as emetics, anthelmintics, etc.

The Doctor said the acid *did* enter the blood and exerted an influence upon it, for it could be detected in the urine in eight minutes after its exhibition.

Salicylic acid was an antipyretic because it reduces the tempera-

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ture, and induces copious perspiration in cases of fever by increasing vascular tension.

It was an invaluable remedy in the treatment of acute articular rheumatism, and, when exhibited properly in this disease, it gave evidence of anodyne properties. It is also believed to be efficient in arresting the pernicious ferment found in some miasmatic diseases.

At the January meeting, 1880, Dr. Wm. Savery, of Bryn Mawr, read a paper on "The Use of Pilocarpine in the Treatment of Puerperal Convulsions."

The paper was based upon the treatment of a case occurring in Dr. S.'s practice in which the drug was used with good results.

The patient, aged 35 years, seven months advanced in her ninth pregnancy, in apparently good health, was suddenly seized with a convulsion; bromide of potassium in full doses with an application of ice to the head were administered. In a few hours a second convulsion occurred, and even a bold venesection to the amount of thirty fluidounces, together with full doses of chloral first by mouth, but afterwards by rectum because of nausea and emesis, failed to abort these convulsive attacks, for the patient had a third and a fourth after an interval of several hours.

Bleeding was repeated, but only 6 oz. could be obtained. Opiates were given by the rectum. The urine was examined and found to be heavily charged with albumen. Patient became semi-comatose.

Began the use of pilocarpin in $\frac{1}{8}$ grain doses every hour, which was continued until salivation was produced. On the following day the dose was increased to $\frac{1}{3}$ grain—the third dose produced diaphoresis, and patient's sleep changed from a semi-comatose to a more natural rest. Urine passed more frequently and freely, and the general condition of patient was much improved. The albumen gradually diminished while the pilocarpin was continued for a day longer. The patient made a good recovery, and in two weeks later was delivered of a still-born child.

Dr. Savery read extracts from a paper upon the same subject, prepared and presented at the annual meeting of the State Medical Society of New York, by Professor Fordyce Barker. A *résumé* of six cases was the groundwork of Professor Barker's paper—all observed by himself with the view of estimating the specific qualities and virtues of pilocarpin as an agent for eliminating from the system that peculiar cause that creates the convulsions.

Five out of six of Professor Barker's cases died, and he attributed this heavy mortality in a great measure to the depressing influence of the drug, which prevented sleep and repose. The conclusion

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arrived at from the investigation, was, that pilocarpine was an unsafe and dangerous remedy.

Dr. Savery contrasted the experience of other physicians eminent in their profession, who thought well of the remedy and had used it repeatedly with success. Among those who favored its use were Drs. Alfred Whelan, Albert Smith, and others.

The paper revealed the fact that widely different views were held by others than those mentioned—equally eminent in their profession both in Europe and America—as to the value of pilocarpin, but the weight of authority seemed to be in its favor, especially when judiciously administered and at the same time coupled with vigorous venesection.

Did time and space permit, other extracts of papers and essays might be embodied in this report, but those selected are a fair sample of the work done by the Society at its bi-monthly meetings. The degree of harmony and good feeling which prevails among the members of the Society gives abundant assurance of a prosperous future. New members are being continually added to the roll and a majority of them are earnest in their professional work and in the advancement of the honorable calling they have chosen.

The younger members feel the *necessity of keeping abreast with the advancement of the age.* The views of one of the most enthusiastic and enterprising members of the Society—now its honored President—upon this subject are here appended.

Post-graduate Studies.—SAMUEL WOLFE, M.D., of Skippackville, writes:—

The man who will not methodically read and study after having taken his medical degree, is destined to remain behind in the race for fortune, fame, and honor, whatever may be his merit, or acquirements. It is to the progressive physician, whose education will end only with his death, that I would address myself. Those who have had the advantages of a regular collegiate course prior to their attendance upon medical lectures will need no suggestion, for it is presumed that they have their medical education founded on a liberal general knowledge, and have acquired literary tastes and habits of study which cannot fail to guide them aright. But this class will embody only a small portion of the profession, though the requirement of preliminary examinations, which is being introduced into our medical schools, will doubtless largely increase this number. The longer period of attendance on lectures, and the grading of the course will also afford time and induce to a greater amount

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of contemporaneous literary or classical study than was possible under the old two years' cram.

But there will continue to come, as there now are, physicians—regular graduates and worthy professional men—who awaken from the abstraction of their course of regular study to a painful sense of their want of literary culture. They find, when once fixed in society, that more than mere professional skill and knowledge will be exacted. They have probably determined on a professional course when too much advanced in age to pursue an extensive preparatory course, or have been seriously restricted in monetary means for a long school life. Yet many of these are men whom the profession could ill-afford to lose, earnest, conscientious, and skilful doctors. Shall they now attempt to amend by digging out Greek roots or by puzzling over calculi? Were it not better for them to accept the decision of some of our most eminent scholars, among whom is Dr. Elliot, of Harvard University, that the best criterion of a liberal education is a thorough and comprehensive knowledge of the English language and its literature? And how much greater would be the chances of success in attaining this, in which of necessity they must already be tolerably well advanced! This acquired, of whom is there need to be ashamed? Certainly not of many of our great classical scholars who know the dead languages much better than their mother tongue. Let the most liberal view be taken of this course, so that it may embrace mental and moral science, history, geography, and political economy, and couple it with a full knowledge of medicine and general science, and there is little left for the most ambitious M.D. to desire. The practical point is, that this is not more than industry and perseverance can achieve, while the attempt to become a classical scholar would either fail or succeed at the expense of the physician's usefulness. As for methods to pursue, they will readily suggest themselves to an orderly man, but will at all events require strict system. And this enforced, there are few who can successfully plead want of time in face of the fact that our great thinkers and writers are generally also intensely busy practical men. And nowhere is this more true than in the medical profession. They do not gain their time by neglecting or proscribing practical duties, but rather by giving that direction to their thoughts which while it varies also rests. Thus they effectually prevent that plodding course by which men of lesser minds are so apt to weigh themselves down.

In pursuing this course you are studying your lesson with every word you speak or write, every page you read, and every thought you evolve. To worship your myths in the classic shades you must

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let the busy humming world spin by you, and when you cast yourself in its current again, you will be far behind that portion from which you escaped for that impracticable purpose. Be satisfied then, if your classical training has been neglected, to become through your own toil an accomplished gentleman, an eminent English scholar, and a thorough physician.

State Hospital for Insane.—This institution, recently finished and transferred to the management of a Board of Trustees by the Commission appointed for its location and erection, stands on a plateau north of Norristown.

The site was well chosen, and the grounds comprising it consist of 265 acres, under a high state of cultivation. The buildings, seven in number, are built upon the plan of detached or separate wards, connected by means of corridors. Each ward is capable of holding 108 patients—except one ward for violent insane, whose capacity is 78—or 726 in all. In addition to the above are the administrative building, chapel, kitchen, laundry and boiler-house—all substantially built.

The cost of grounds and buildings, in round numbers, was the amount appropriated by the Legislature for them, or $600,000—a marvel of cheapness.

The management of this hospital, as instituted by the Board of Trustees, is intrusted to an executive committee of three, who may with propriety be designated the Supervisory Committee, appointed by the trustees from among their number for a term of three months. This committee forms the responsible head of the institution, and subordinate to it are the Male Resident Physician, in charge of the male patients; the Female Resident Physician, in charge of the female patients, and the Steward, whose duties need not be enumerated here—positions that are co-ordinate and coequal in character, but independent of one another in authority, and responsible only to the Supervisory Committee already mentioned.

Such management of an insane hospital of no small proportions is novel in its conception, plausible in theory, but of doubtful practicability. Of doubtful practicability because of the ever-changing complexion of this Supervisory or Executive Committee, composed, as it frequently will be, of men who have never before entertained a thought upon charitable institutions or their management.

At the time of writing this sketch of the institution, it contains but thirty patients, but is prepared for four hundred. In a few days, as per order of the courts of Philadelphia, two hundred and fifty of the Blockley Almshouse insane will be transferred to this in-

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stitution. Then this new hospital *regimé* will be under full sail. It is hoped by all good citizens and humanitarians that this new departure in the management of a hospital will prove a triumphant success.

Apparently every facility and convenience for the improvement of the mental condition of those insane who may be regarded curable are afforded by this institution, and the old Keystone State, in adding this noble charity to her already large list of similar and kindred institutions, has done honor to herself and at the same time has reflected the humane sentiment of her intelligent citizens.

Dr. A. MELLERSCH, of Lower Merion, contributes the notes of the following case of—

Puerperal Convulsions, with Convulsions of Child.—Mrs. H., æt. 19 years, whose health had previously been good until within a few days of her expected time, when she complained of vertigo and had œdematous feet.

At 7 A. M. one morning she was seized with a convulsion. I saw her in one-half hour afterward and bled her copiously, but without any apparent benefit.

At 3 P. M. I delivered her of a fine child by the use of instruments.

The condition of the mother seemed to improve for some time, but the convulsions returned, and the patient died in a comatose condition twenty-one hours after the first attack.

Without going into detail, the treatment recommended by Professor Fordyce Barker was closely followed; but the case was an unusually severe one, consciousness never returning after the first convulsion.

The point of interest in this case was the child, which, after delivery, seemed to do well for a time. Its cry was vigorous, and nourishment was taken with avidity.

After the death of the mother, I observed slight periodical contractions of the buccinator muscles. These gradually developed into convulsions, which closely resembled those of the mother. To those who could have observed them there would have come the conclusion that the origin of the convulsions were identical.

The child only survived the mother twenty-four hours.

After closely watching such a train of symptoms and events, the question naturally arises: "Through what medicine and in what way did the morbid cause (whatever that may be) that was resident in the system of the mother affect the child?"

That the disease had not developed in utero we know from the

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fact of the child's healthy condition for hours after delivery. It seemed, apparently, as though it required the post-natem functions for the development of the pathological condition. If, as is the most general belief, the morbid cause of puerperal convulsions be in the condition of the blood, that condition must be such as to influence the fœtal circulation by osmosis, as we know there is no direct communication between the blood of the mother and that of the child, and that the osmotic action is not the same as that which eliminates the albumen from the kidneys.

The above case seems to point to the conclusion that the cause of puerperal convulsions is in a vitiated condition of the blood, and *this*, whether it be produced by the presence of urea, albumen, or some other substance, requires the development of the post-partum functions in the child to produce its irritant effect upon the nerve centres.

Dr. MELLERSCH also contributes the following:—

Case of Vicarious Eruption.—The following case presents some points of interest, and although far from being infrequent, it represents a class of cases which deserve careful classification, with a view to tracing the *modus operandi* of the remedy used.

M. N., female, applied for relief with sore-throat, from which she had suffered for many years, and had been under the treatment of a number of physicians, but without any benefit. All the ordinary remedies had evidently been used. On examining the throat, I found it congested, and covered with what appeared to be a papular eruption. The laryngoscope was not needed. The remedies employed in succession were potas. iodid., belladonna, and arsenic, but without any benefit. I used no local treatment, as that had been thoroughly tried without success. The patient still wishing to persevere, I inquired very minutely into the condition of health at the time of the commencement of the difficulty, and was told that there was nothing unusual. The mother remembered, however, that there had been a slight eruption on the back of the left shoulder, near the joint, which disappeared at the time the throat became inflamed. I ordered an eruption to be produced at this point by the use of croton oil. On the eruption from the oil appearing the throat symptoms disappeared for the first time since many years. Unfortunately the throat symptoms reappeared as the eruption died away, but were again relieved on the application of the oil.

The question arises, Whether the remedy simply acted as a revulsant; if so, why did not counter-irritation over the throat relieve the patient? Through what tissues did the revulsion occur at such

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a distance from the seat of the trouble? I suppose the nervous system will offer the most convenient explanation; probably because it is least understood.

Dr. P. Y. EISENBERG, of Norristown, reports the following interesting and instructive case, showing how the real evidence of malignant disease may be concealed for a long time during the progress of the affection:—

Mrs. A. S., aged 56 years, a multipara, menstruated when 14 years of age, suffering very much. The period usually lasted about a week, and a great quantity of blood was lost. The menses appeared regularly for one year, when there was a pause in their appearance for a year. The patient attributed the suppression to cold, which is undoubtedly correct, as she worked a great deal in a spring-house at that time, and in cold spring water almost daily.

The menses returned after twelve months' absence, and were regular in appearance as a rule; sometimes the interval would be but three weeks, until 51 years of age, when the menopause took place.

During these thirty-seven years of menstrual life, each period was characterized by great pain in the back, and loins, and hips. The flow would start for a few hours, or even a half day, and would then stop. During the cessation she would experience "creeps," "cold sweats," and "intense pain" in uterine region, groins, and hips. "The pain was so great that the flow was reversed, and she would vomit clear red blood freely." During this vicarious process the normal flux was absent.

When the flow was thus reversed, if the patient heated herself by means of hot dishes to the abdomen, warm foot-baths, and by drinking hot teas, the flux would be re-established with griping pains. These would expel clots of blood from the uterus. The patient could feel them spurt out into the vagina. The expulsion of these clots would be followed again by a perfectly easy, normal flow, with little or no pain. The duration of her extreme pain, so intense that the patient was generally compelled to go to bed, was for the first twenty hours of each period. She had repeatedly sought medical advice, and had been treated by a number of physicians, but to no effect. The marriage relation neither aggravated nor mitigated her sufferings.

Such was our patient's history of her menstrual life as related most intelligently by herself. Five years ago she ceased menstruating and became exceedingly corpulent. Felt better, and enjoyed life more than at any other period of her existence. Four

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years and a half ago she was carrying a heavy market-basket, resting its weight upon her lower left abdominal wall, when "something gave way," as she expressed it, and almost immediately a flow of blood from the uterus began. This has kept up, with a gradual change occasionally to a thin yellowish discharge, to be followed again with a profuse bloody flow until the time of making a memorandum of these notes.

She was averse to a vaginal examination, and so the diagnosis of her case, which necessarily was of doubtful character, was formed from her most prominent symptoms, in the absence of any history of cancer, or any symptom of the same. It was that of metrorrhagia, resulting from a fungous or spongy condition of uterine mucous membrane, or from a uterine polypus, or from a uterine tumor.

The diagnosis was made from the following symptoms: The bloody discharge, which was increased by the patient being upon her feet, or upon exertion however slight, or by light lifting, by loss of strength, and general soreness and swelling over abdomen in the region of the uterus; by pains in the groin, extending to the pubic arch in front, also down the hips to the thighs, and around to the "small of the back;" by gastric disturbance, etc. etc.

The treatment determined upon was that of the administration of half-teaspoonful doses of fluid extract of ergot three times daily; vaginal injections of Monsell's solution twice daily in proportion of ʒij to a pint of water, together with opium suppositories per rectum to relieve the aching pain.

This treatment was steadily pursued for three months, with occasional intermissions whenever the patient felt improved; but a season of four or five weeks of comparative good health was always followed by a severe hemorrhage, when she always became worse in every respect.

In about six months after I first saw her, at one of these hemorrhages, the patient lost not less than three pints of blood in a very few minutes—coming with a gush, just as if it had been accumulating in some reservoir and suddenly burst from its confines. She bled for one day and a half very freely, and was much prostrated from the loss of blood.

An examination per vaginam was now insisted upon and obtained. The cervix uteri was apparently normal in appearance, except slightly inflamed. The use of the sound brought a flow of blood, and the fundus was extremely sensitive to the touch of the probe. No tumor in uterine walls—no polypus—was found. The cause of the uterine hemorrhage was in the cavity of the womb.

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This was now believed to be due to fungous or vegetative growths upon the uterine mucous membrane, and probably a cancerous condition of the whole organ was at the bottom of the affection.

Local applications of iodine and iodide of potassium in glycerine were made to the cavity of uterus, passing probe to the fundus once a week. Vaginal suppositories of morphine and belladonna were employed at night to the cervix. This treatment was kept up for four months, with no hemorrhage in the mean time except an occasional slight coloring of the watery discharge which was continually flowing from the uterus. This discharge was clear, inoffensive in smell, containing no shreds of tissue, and gave no discomfort to the patient other than that of constantly soiling her linen. The amount discharged in twenty-four hours varied from about two ounces to a half pint, as near as could be ascertained.

The patient improved in every other respect while under the above-mentioned treatment, when, at the end of four months, a hemorrhage more violent than any that had preceded it occurred. It was now determined to explore the cavity of the uterus, and for this purpose sponge tents were used to open the cervical canal; but upon withdrawing the tents a hemorrhage followed so violent that it was impossible to use either the finger or the curette. The latter was about to be employed with the view of scraping off the fungous growths supposed to be flourishing upon the surface of the uterine mucous membrane.

The free use of ergot internally, together with injections of Monsel's solution into the cavity of uterus, controlled the hemorrhage.

The patient now began to emaciate and grow weak, to lose her appetite, and to fail in every respect. She very reluctantly gave her consent to a second exploration of the uterus by the same methods, but again a profuse hemorrhage foiled the attempt.

All local treatment was now abandoned for the space of three months, and internal treatment wholly relied on. This consisted in the free use of opium suppositories for pain, and tonics of an astringent character, with an occasional use of ergot when there was a demand for it.

During these three months the patient became very much emaciated, and feeling sure that there was malignant disease, I requested and obtained a speculum examination, and found that the cervix for a full quarter of an inch around the os uteri had become disorganized and presented the general appearance of an epithelial cancer. Professor Wm. Goodell, of the Medical Department of the University of Pennsylvania, who saw the case subsequently, confirmed this diagnosis.

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The patient gradually grew worse from this time (the latter part of November, 1879) until May, 1880, when she rallied somewhat, only to be further reduced by several severe hemorrhages, and she finally took to her bed in June and died during the first week in July, 1880.

About five months prior to her death she observed that liquid fecal matter was passing out the vagina, showing a perforation somewhere through the recto-vaginal septum or through the rectum into the uterus. The discharge of fecal matter—often very solid and ball-like—per rectum became less and less frequent, until in a few weeks the entire contents of the bowels were discharged through the vagina.

The life of this patient during the past five months was almost intolerable. The discharge of water and occasionally of blood reduced her from a stout, portly woman to a shadow; and although this was constantly present for full two years, yet there was no offensive odor about it except during the last two months.

For the sharp lancinating pains which racked the patient's body —particularly the head and groins—morphia was at first used; but the bad head effects, together with the derangement of the stomach which it caused, precluded its use, and the other alkaloid of opium —codeia—was used instead, with apparently much better results and with just as much anodyne effect.

The above case proved to the writer how interesting, yet exceedingly troublesome, a case may be, and at the same time how utterly futile are the attempts of medical skill in combating the inroads of this terrible disease.

All of which is respectfully submitted.

P. Y. EISENBERG, *Chairman*,
DAVID SCHRACK,
WILLIAM SAVERY.

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REPORT OF THE NORTHAMPTON COUNTY MEDICAL SOCIETY.

DURING the past year the northern portion of Northampton County, lying south from the South Mountain, for a distance of three miles, and extending two and a half miles both east and west from Pen Argyle, has been exempt from any severe epidemic sickness. The epidemics of the locality represented have been mild in character, and limited in prevalence, during the past year. Inflammatory affections of the respiratory and alimentary mucous surfaces have been less prevalent and less fatal, than during any of the preceding three years.

A remarkable freedom from sickness prevailed during the early spring months.

About the middle of August, a mild epidemic of diarrhœa visited the town and vicinity, presenting, however, nothing worthy of note either in the type of the disease, its history, or therapeutical requirements. There were no deaths. In the latter part of September catarrhal pneumonia invaded the community. With few exceptions its subjects were infants and children under 14 years of age. Its exceptional feature was in nearly all cases during the first two days a profuse miliary efflorescence, closely resembling scarlet rash. The treatment consisted of mild laxatives; and, to control the cough and fever, tr. opii c. fld. ext. veratrum viride, and liq. ammon. acet.

In fully one-third of the cases a marked periodicity manifested itself, but yielded promptly to the power of quinia and Dover's powder.

There were no fatal cases.

I treated one adult and ten children during the months of February and March, 1880, subjects of typhoid pneumonia. These were the only cases of this grave disease that occurred within the field of my practice during the past year. The adult, Mrs. S., aged 22, was seized Feb. 16 with severe chill, followed by rigors, pain in chest, cough, at first short, dry, hard, and almost continuous, preventing rest and sleep; respiration thirty-five; pulse bounding, full, and 130; temperature 103°; expectoration none during first twenty-four hours, but subsequently profuse and quite characteristic. These

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symptoms, declarative alike of the disease and its violence, also called loudly for prompt, judicious, and energetic treatment, both to control the malady and to protect the organs and economy against permanent injury. To accomplish this, I prescribed a cathartic of calomel and compound colocynth powder, with three grains of nux vomica. This not yielding the needed relief, was followed in five hours by citrate of magnesia. The chest was protected during the whole sickness by inunction of lard and turpentine and hop poultices. On the second day a blister was applied to left side of chest.

As arterial sedatives, tincture digitalis, fld. ext. veratrum viride, and spirits of nitrous ether, supplemented with calomel, ipecac and opium, were relied on, and administered as needed.

During the second stage of the disease, the stage of debility, or typhoid stage, the remedies employed were Dover's powder and quinine, chlorate of potassa, native wine, beef tea, chicken broth, and other nutritious food. Tepid sponging evening and morning. The patient was seen in consultation by the former president of the society, Dr. A. A. Seem. Patient recovered. The other two typhoid patients above mentioned were brothers, aged respectively five and seven years; strumous and delicate constitution. The disease followed catarrhal fever, and was at no stage marked by high vascular excitement. The medicines prescribed, were Dover's powder, quinia, turpentine, wine, and chlorate of potassa internally, and turpentine, and hop poultices, topically to chest and abdomen. Daily tepid sponging. Both recovered.

Furuncules (boils) and eczema, prevailed extensively among children, during the months of June, July, and August. One little sufferer, aged eight and a half years, of frail constitution, and badly nourished, had thirteen boils varying from one half an inch to two inches in diameter. He was placed on generous diet, and had prescribed iron, arsenic, and quinia. Is now much improved and apparently free from his disorder.

Diphtheria made a sudden and alarming invasion into the village, the first subject being a robust young man, aged 21 years. On the 3d of October I was called to see G. F., whom I found in bed with a high state of fever, a hot, pungent skin, flushed countenance, feeble but rapid pulse, great difficulty in swallowing, and hurried respiration; the tongue covered with a thick, dirty yellowish-brown coat; the palate, uvula, and pharynx of a deep, dusky, *erysipelatous* redness; both tonsils greatly swollen, and of the same dark-red color.

This array of symptoms surrounded the case with an atmosphere

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of terror, not only in the minds of the family but throughout the village.

The treatment was both local and constitutional. The local treatment, applied to the fauces, consisted of a saturated solution of chlorate of potassa, with muriated tincture of iron, as a gargle every thirty minutes; and externally the throat was enveloped with cloths saturated with volatile liniment during the first twenty-four hours, and subsequently bran and hop poultices were employed. Internally, a vigorous supporting and sthenic course of treatment was adopted and persisted in through the entire progress of the sickness. This consisted of iron, chlorate of potassa, quinia, wine, broths, beef-tea, and other nutriment, both fluid and solid, as the patient's fancy suggested, or according to his ability to swallow.

My own conviction is, that a sthenic and supporting course of treatment, if adopted early, and faithfully adhered to throughout the whole course of the sickness, would rob this disease of much of its terror, and would add largely to the percentage of recoveries.

Another suggestion I beg to add, is that, although mercury has been wholly discarded and even condemned by many physicians in the treatment of diphtheria, not only as useless but as positively hurtful, save only when administered as a purgative, in the early stages of the disease, my own conviction sanctioned by much experience, extending over a quarter of a century's practice, compels me to regard calomel in combination with soda as the very best therapeutical agent at our command to liberate the membranous exudation, and to prevent the renewal of the same both in diphtheria and croup.

The thirteen cases of diphtheria treated by me during the past year resulted in recovery.

In obstetrics I have little of interest to report. Total deliveries 32. One still-born. Males 15; females 17. One case of prolapsed funis. The patient was placed on her face and knees, and by manipulating the cord it was replaced within the womb, and retained there for an hour, till the uterine contractions advanced the head so as to occupy the entire circle of the os uteri, and thus effectually guard against any further danger from the presenting funis. After depositing the cord in the womb, ergot was given in drachm doses of the fld. extr. every half hour, and in two hours a live and well-developed daughter was born. Two cases of post-partum hemorrhage and one case of hour-glass womb occasioned some anxiety and attention, but resulted in satisfactory recoveries.

There have been treated two cases of cerebro-spinal meningitis; the first case, March 21st, a child 2½ years old, which died thirty-six

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hours after first visit. The second case occurred April 15th, was first seen at 9 P.M., and died at 5 A.M. next day. This was an infant six months old.

The following additional deaths occurred during the year:—

June 20, 1879, Mrs. Gum, aged 48; disease, cancer of left breast. September 12th, infant 10 days old; disease, secondary umbilical hemorrhage. November 18th, Mrs. Delp, aged 54, palsy. Feb. 28, 1880, Mr. Delp, disease, pulmonary apoplexy. Feb. 28, Mrs. Moyer, aged 73, consumption.

G. A. GOTWOLD, M.D.,
Chairman Com.

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REPORT OF THE PHILADELPHIA COUNTY MEDICAL SOCIETY ON METEOROLOGY AND EPIDEMICS, FOR THE YEAR 1879.

In regard to the meteorology of our city for the past year it may be stated in general terms that without any great vicissitudes of maximum and minimum temperature, the mean thermal condition of winter and spring was decidedly lower than, and that of summer and autumn nearly identical with, the corresponding averages of 1878.

July 16th, as shown by Prof. Jas. A. Kirkpatrick's admirable tables, was the warmest day of the year, the thermometer marking 96° and the mean temperature being 89°, while the coldest day was the 3d of January, when the thermometer stood 3° above zero and the mean temperature was only 9.33° for the twenty-four hours.

During January and February a smaller number of inches of rain or melted snow fell than usual, and the relative humidity was decidedly less than common, amounting in the former month to only 62.5 per cent. of saturation. The vernal season was late in making its appearance, and it was not until near the end of April that the weather showed any of the balminess of spring. Rain fell upon nearly half the days in April, and amounted to 6.75 inches or nearly double that which was collected during the corresponding period of the preceding year.

After a premature onset of hot weather upon the 1st day of June, when the thermometer rose to 95° in the shade, some cooler days were experienced, but the average for June was 5° higher than that of 1878, and the amount of rain-fall as well as the relative humidity were both markedly increased.

The second week of July was a period of intense heat, and the 16th of this month is reported as the hottest for three years, the mercury at the Pennsylvania Hospital marking 100°. Numerous cases of sunstroke occurred, but the heated term was fortunately not of long duration, and the mean monthly temperature was nearly 2° less than in the previous year. August was also rather cooler, but the heat of this and the antecedent month had (as prophesied by your committee last year in consequence of the events upon the steamer Plymouth) been sufficient to stimulate germs of yellow fever into

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activity in many parts of the Southwest, and on the 11th of August this dreaded disease was declared epidemic in Memphis, 50 cases and 10 deaths having occurred in the previous forty-eight hours.

October was remarkable for unusual prevalence of hot dry weather, causing the mean temperature to attain the almost extraordinary height of 66°, while the rain-fall during the whole month amounted to only .35 of an inch. Fears of a water famine were widely entertained and only dissipated when December closed the year with its abundance of rain and a consequently comparatively high relative humidity.

Philadelphia has fortunately escaped any serious epidemic during the past year, and those of her inhabitants who are wise enough to esteem the *mens sana in corpore sano* as the greatest earthly good, can point with pride to the death-rate of 17.17 per 1000 as probably lower than that of any other large city, and one which (if we can but maintain it) will soon render our metropolis of the Keystone State famous throughout the world as the City of *healthy* homes.

In order to realize the significance of these figures it is necessary to remember that the annual death-rate in Denmark, the healthiest European country, is 19.9, whilst in Austria it is 31.3; also that the mortality in New York (1876) was 27.87, in Boston 24.4, and in London 24.3 per 1000 inhabitants.

Most of the zymotic diseases display a marked decrease in comparison with previous years, as will be seen on reference to the mortuary table appended to this report. The deaths from diphtheria, scarlatina, croup, and enteric fever show a gratifying reduction in number which more than counterbalances a slight increase in the mortality from erysipelas and cholera infantum. No considerable variation occurs in the various groups of local maladies save among the diseases of the respiratory organs, where the deaths from pneumonia and congestion of the lungs exceed those of 1878 by nearly 30 per cent.

The attempt of an epidemic of smallpox to gain a foothold in our community (as well as in several other large cities of the Union) has been happily rendered abortive by the energy and thoroughness with which the invaluable prophylactic of vaccination has been enforced, and any insignificant expenditure by our Board of Health for the purpose of frustrating the outbreak has doubtless saved a hundred times its cost in actual pecuniary outlay, to say nothing of the more important economy of human life and suffering.

More than fifty years of comparative immunity from this loathsome pestilence has so far diminished the public appreciation of our debt to Dr. Jenner for his beneficent discovery, that it is well for us

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to revert occasionally to the medical records of a century ago in regard to the terrible disease of smallpox. This hideous malady was formerly the terror of all classes in England as well as on the Continent, becoming after the disappearance of the plague the severest epidemic of the country. According to Dr. Guy, it was entered on the London bills of mortality from 1629, and in the year 1796, when vaccination was first introduced, the deaths by smallpox alone exceeded 18 per cent. of the total number of deaths. To give some idea of its relative mortality he further states that "during the last ten years of the past century it was more than a hundred times as fatal as diarrhœa and allied diseases, and six times as fatal as apoplexy, palsy, and sudden death taken together. It spared neither age, sex, nor position in life; every fifth person attacked died, and many of those who survived were disfigured or maimed; indeed it is estimated that two-thirds of the blind population formerly owed the deprivation of their sight to smallpox. As a rule the disease, though never entirely absent, broke out in the epidemic form every third year, showing that it proved specially fatal among young children, and, having sacrificed, or at least attacked, all those who were most susceptible, waited for a fresh crop of victims."

One of the most satisfactory evidences of improvement in the care of life and health in Philadelphia during the past year is to be found in the record of infant mortality, by which it appears that the number of deaths of children under the age of five years is only 5524, or 461 less than during 1878, a reduction of nearly 8 per cent. Now a diminution of the infantile death-rate may seem to some of you a matter of minor interest, but when we come to consider that century after century the great mundane business of each generation upon our earth's surface is to procreate and nurture its immediate successor, it becomes obvious, I think, that no department of sanitary service surpasses this one in importance to our race. Few of us have not in our boyhood reared from the seed of some favorite plant, and as we saw the first frail shoot appearing above the ground have failed to realize even in our childish minds, how a few drops less than sufficient water, an hour's too hot sunshine, or the assaults of some almost microscopic insect enemy, might easily kill the tender germ of our vegetable nursling, or cripple and dwarf its entire subsequent development; that perhaps a tiny pebble if thrust against it rudely might bend the feeble stem and render crooked or deformed the trunk of what would otherwise grow into a stately tree.

But the spirit of the axiom, "just as the twig is bent the tree's inclined," is quite as true in regard to human and animal as it is

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respecting vegetable organisms, so that a variation of ten grains more or less of salt or sugar in an infant's food, five degrees of temperature in its bath, or a thickness of flannel in its clothing, may make a difference between life and death, nay even between a hundred years of health and vigor on the one hand, and on the other, half a century of feebleness and deformity to the sensitive organization of the new-born child.

Again, I think it behooves the true philanthropist (who seeks the improvement of our race in accordance with the republican doctrine of choosing the greatest good for the greatest number of human beings) to devote his most powerful energies towards protecting the life, fostering the growth, and promoting the fullest development of men and women during the first fifty years of their existence, without, be it understood, omitting aught which can aid in prolonging the life, or averting or postponing the decline of those who having passed the period of their greatest vigor, must with each advancing year become less and less actively useful and more passively burdensome to society at large.

Hence it appears that the best possible hygienic management of infancy, childhood, and youth is doubly imperative, 1st. Because such sanitary precautions are most effectual during adolescence; and 2d. Because by their successful employment we secure a nation of healthy, vigorous minds in sound, well-developed bodies *during the prime of life*, when the public benefit of their activity is far greater than during the period of decay.

The immense potency of judicious sanitation in infancy is admirably illustrated by the following facts elicited during the discussion of this subject before the French International Hygienic Congress in 1878. Previous to 1789 the maximum infant mortality was stated to be among foundlings. Of these unfortunates, 900 in the 1000, or 90 per cent., died during the first year, and 874 deaths per 1000 is still the rate in some parts of the French Republic. Even under more favorable circumstances the mortality of foundlings in France varies from 500 to 700 per 1000 during the first year.

The average mortality of all infants under one year was reported to be least in Norway, where it amounted to only 104 per 1000; next in Denmark, 135 per 1000; in England and Wales, 154 per 1000; in France, 179 per 1000; in Austria, 259 per 1000; and in Bavaria, 323 per 1000. The conclusions presented in regard to the minimum mortality of infants were, that in a healthy country, with a cool or temperate climate, any rate of death exceeding 90 or 95 per 1000 for the first year of life is due to accidental causes which we are able to avoid by public and private hygienic measures now

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actually within our power. Also, that this mortality may be further reduced in certain social classes, who are able to employ all the resources of science and of fortune for the preservation of their infants, to 75 or even 70 deaths per 1000 during the first year of life —a minimum which has actually been attained among the children of the English nobility, and one towards which we in Philadelphia will, it is to be hoped, strive to approximate more and more nearly with each succeeding year.

All of which is respectfully submitted.

JOS. G. RICHARDSON,
Chairman of Committee.

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METEOROLOGICAL TABLE No. 1.

A General Abstract of the Meteorological Observations made at Philadelphia, Pa., during the year 1879.

By JAMES A. KIRKPATRICK, A.M.

Latitude 39° 57½′ N. Longitude 75° 11¼′ W. from Greenwich. Barometer fount 55½ feet above mean tide in the Delaware River.

1879. MONTHS.	Thermometer. Maximum.	Thermometer. Minimum.	Thermometer. Mean daily range.	Thermometer. Means. 7 A.M.	Thermometer. Means. 2 P.M.	Thermometer. Means. 9 P.M.	Thermometer. Means. Monthly.	Rain or melted snow. No. of days it fell.	Rain or melted snow. Amount	Clouds. Clear. ¼ or less covered.	Clouds. Cloudy. More than ¼ covered.	Clouds. Means of sky covered. 7 A.M.	Clouds. Means of sky covered. 2 P.M.	Clouds. Means of sky covered. 9 P.M.	Clouds. Means of sky covered. Monthly.	Relative humidity. Maximum.	Relative humidity. Minimum.	Relative humidity. Means. 7 A.M.	Relative humidity. Means. 2 P.M.	Relative humidity. Means. 9 P.M.	Relative humidity. Means. Monthly.
	°	°	°	°	°	°	°	days	inches	days	days	p. c.	p. c.	p. c.	p. c.	p. c.	p. c.	p. c.	p. c.	p. c.	p. c.
January,	56	3	6.70	28.71	35.47	31.63	31.94	7	2.63	5	26	80	57	42	59.5	91	29	68	55	64	62.5
February,	58	15	6.19	29.14	36.46	33.36	32.99	9	2.17	6	22	57	71	56	61.6	93	19	65	53	65	61.0
March,	68	26	6.10	39.78	49.27	43.90	44.32	15	2.43	4	27	70	65	46	60.5	92	18	63	47	60	56.9
April,	76	32	5.68	46.62	58.07	51.37	52.02	15	5.75	10	20	60	66	45	57.1	91	13	59	42	56	52.6
May,	93	45	4.11	61.89	73.52	65.98	67.13	6	1.29	11	20	56	54	30	46.7	89	22	63	40	61	54.7
June,	95	58	4.26	72.65	80.78	75.55	76.32	13	6.38	11	19	50	59	34	47.5	76	30	64	47	60	56.8
July,	96	65	3.41	75.84	84.19	79.81	79.95	10	4.51	12	19	52	64	40	51.9	91	29	65	48	62	58.6
August,	94	63	3.38	73.69	81.03	76.11	76.94	11	6.65	10	21	59	70	43	57.7	86	38	72	57	70	66.2
September,	86	46	3.62	63.83	72.80	67.48	68.04	8	1.13	9	21	59	65	36	53.5	91	30	74	52	70	65.5
October,	87	37	5.46	61.69	71.32	65.02	66.01	6	0.35	12	19	46	51	35	44.3	89	23	68	49	63	59.9
November,	76	22	7.33	47.57	53.79	51.98	51.11	10	1.45	10	20	55	52	40	49.1	81	21	57	44	53	51.1
December,	66	15	7.93	41.53	46.10	45.60	44.41	12	5.71	5	26	69	68	76	71.0	89	26	67	53	60	60.0
Annual means,	max 96	min 3	5.35	53.58	61.90	57.32	57.60	total 122	total 40.45	sum 105	sum 260	59	62	44	55.0	max 93	min 13	65	49	62	58.8
Winter,	64	3	6.10	30.92	37.25	34.07	34.08	24	9.65	20	70	65	63	48	58.7	96	11	67	51	64	60.7
Spring,	93	26	5.30	49.43	60.29	53.75	54.49	36	9.47	25	67	62	62	41	54.8	92	13	62	43	59	54.7
Summer,	96	58	3.68	74.06	82.00	77.16	77.74	34	17.54	33	59	54	64	39	52.4	91	29	67	51	64	60.6
Autumn,	87	22	5.47	57.70	65.97	61.49	61.72	24	2.93	31	60	54	56	37	49.0	91	21	66	48	62	58.9
Means for 28 years,	max 102	min —9	5.41	50.65	60.11	54.11	54.96	an'ual 125	an'ual 46.50	an'ual 109	an'ual 256	60	61	46	55.7	max 100	min 7	73	55	69	65.7

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METEOROLOGICAL TABLE No. 1—*Continued.—A General Abstract of the Meteorological Observations made at Philadelphia during the year* 1879.

1879. MONTHS.	Force of vapor. Maximum.	Force of vapor. Minimum.	Force of vapor. Means. 7 A. M.	Force of vapor. Means. 2 P. M.	Force of vapor. Means. 9 P. M.	Force of vapor. Means. Monthly.	Winds. Monthly Resultant.	Winds. No. of times in 1000.	Barometer reduced to 32° Fahrenheit. Maximum.	Barometer reduced to 32° Fahrenheit. Minimum.	Barometer reduced to 32° Fahrenheit. Means. 7 A. M.	Barometer reduced to 32° Fahrenheit. Means. 2 P. M.	Barometer reduced to 32° Fahrenheit. Means. 9 P. M.	Barometer reduced to 32° Fahrenheit. Means. Monthly.
	inch	inch	inch	inch	inch	inch	direction from	times	inches	inches	inches	inches	inches	inches
January,	.320	.026	.117	.117	.120	.118	N. 71° 10′ W.	307	30.445	29.402	30.016	29.962	30.005	29.994
February,	.361	.034	.109	.118	.131	.119	N. 55 59 W.	352	30.709	29.394	30.039	29.993	30.027	30.020
March,	.347	.047	.162	.175	.176	.171	N. 40 2 W.	224	30.640	29.324	30.077	30.014	30.029	30.040
April,	.509	.060	.198	.210	.223	.210	N. 57 6 W.	285	30.346	29.371	29.889	29.842	29.874	29.868
May,	.756	.125	.372	.351	.412	.378	S. 45 0 W.	97	30.426	29.672	30.042	29.992	30.005	30.013
June,	.801	.212	.528	.509	.547	.528	S. 66 58 W.	316	30.232	29.424	29.939	29.892	29.913	29.915
July,	.911	.313	.589	.567	.640	.599	S. 39 49 W.	249	30.229	29.500	29.941	29.914	29.910	29.922
August,	.939	.338	.605	.600	.640	.615	S. 87 48 W.	172	30.117	29.658	29.922	29.887	29.892	29.900
September,	.840	.185	.455	.426	.479	.453	S. 77 12 W.	158	30.378	29.677	30.090	30.050	30.079	30.073
October,	.742	.094	.402	.406	.431	.413	West.	293	30.748	29.496	30.125	30.072	30.099	30.099
November,	.542	.051	.211	.208	.235	.218	West.	290	30.506	29.412	30.110	30.063	30.104	30.092
December,	.481	.037	.189	.177	.197	.188	N. 54 28 W.	107	30.562	29.595	30.132	30.095	30.132	30.120
Annual means,	max. .939	min. .026	.328	.322	.353	.334	N. 83° 41′ W.	212	max. 30.748	min. 29.324	30.027	29.981	30.006	30.005
Winter,	.509	.026	.125	.120	.132	.126	N. 72° 44′ W.	357	30.709	28.648	30.012	29.963	29.986	29.987
Spring,	.756	.047	.244	.245	.270	.253	N. 60 21 W.	173	30.640	29.324	30.003	29.949	29.969	29.974
Summer,	.939	.212	.574	.559	.609	.581	S. 62 11 W.	236	30.232	29.424	29.934	29.898	29.905	29.912
Autumn,	.840	.051	.356	.347	.382	.362	S. 87 20 W.	246	30.748	29.412	30.108	30.062	30.094	30.088
Means for 28 years.	max. 1.059	min. .012	.323	.331	.345	.333	N. 77° 17′ W.	194	max. 30.970	min. 28.648	29.934	29.894	29.916	29.915

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METEOROLOGICAL TABLE No. 2.

Great or sudden changes of Temperature at Philadelphia, Pa.

1879.													
January	2.	Thermometer	fell	from	37°	at 2 P.M.	to	14°	at 9 P.M.	same day.	Change	23°.
"	25.	"	fell	"	53	" 2 P.M.	"	24	" 7 A.M.	next day.	"	29
March	10.	"	rose	"	45½	" 7 A.M.	"	68	" 2 P.M.	same day.	"	22½
April	9.	"	rose	"	43½	" 7 A.M.	"	67	" 2 P.M.	" "	"	23½
"	26.	"	fell	"	82	" 2 P.M.	"	55	" 9 P.M.	" "	"	27
May	12.	"	rose	"	57	" 7 A.M.	"	78	" 2 P.M.	" "	"	21
"	31.	"	rose	"	73	" 7 A.M.	"	93	" 2 P.M.	" "	"	20
October	3.	"	rose	"	67	" 7 A.M.	"	87	" 2 P.M.	" "	"	20
"	23.	"	fell	"	73	" 2 P.M.	"	51	" 2 P.M.	next day.	"	22
Decemb.	11.	"	fell	"	63	" 7 A.M.	"	41	" 7 A.M.	" "	"	22
"	20.	"	fell	"	43	" 9 P.M.	"	21½	" 9 P.M.	" "	"	21½
"	25.	"	fell	"	46	" 7 A.M.	"	19	" 7 A.M.	" "	"	27

The mean temperature was below 32° on

January 2, 3, 4, 5, 6, 7, 10, 15, 16, 17, 19, 20, 21, 26 . .	= 14 days.
February 1, 2, 14, 15, 16, 17, 19, 20, 21, 22, 27, 28 . .	= 12 "
November 21	= 1 day.
December 21, 26, 27	= 3 days.
Total	30 days.

And above 81° on

May 31	= 1 day.
June 1, 2, 15, 24, 27, 28, ...	= 6 days.
July 3, 4, 11, 15, 16, 17, 23, 27, 28, 29, 31	= 11 "
August 1, 2, 3, 4, 5, 6	= 6 "
Total	24 days.

METEOROLOGICAL TABLE No. 3.

Maxima and Minima, etc.

The thermometer was highest, 96°, on the 16th of July.
" " " lowest, 3°, " 3d of January.

The warmest day was July 16, of which the mean temperature was 89°.
" coldest " January 3, " " " " 9.33.

The barometer was highest, 30.748 inches, on the 26th of October.
The greatest mean daily pressure was 30.692 inches on the 28th of Feb.

The barometer was lowest, 29.324 inches, on the 31st of March.
The least mean daily pressure was 29.374 inches on the 31st of March.

J. A. KIRKPATRICK,
Observer.

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MORTUARY TABLE.

Record of Deaths in the City of Philadelphia, from January 1st, 1879, to December 31st, 1879, both inclusive.

Abridged from the Tables of the Philadelphia Board of Health.
(Still-births and premature births omitted. 468 M., 341 F.; 58 col. 96 M., 94 F.; 8 col.)

CAUSES OF DEATH.	Total.	Males.	Females.	Boys.	Girls.	Under 1 year.	1 to 2 years.	2 to 5 years.	Adults.	Minors.	People of color.	Nativity. United States.	Nativity. Foreign.	Nativity. Unknown.
ALL CAUSES	15,473	7888	7585	3518	3178	3505	1034	985	8777	6696	928	11,214	3576	683
SPECIFIED CAUSES	15,457	7876	7581	3509	3178	3498	1034	985	8770	6687	927	11,202	3574	681
CLASSES.														
I.—Zymotic diseases	2883	1475	1408	1123	1085	951	375	510	675	2208	100	2553	276	54
II.—Constitutional diseases	3860	1855	2005	523	549	555	147	86	2788	1072	289	2650	1045	165
III.—Local diseases	6444	3357	3087	1322	1161	1255	459	353	3961	2483	417	4534	1611	299
IV.—Developmental diseases	1768	797	971	428	333	691	41	16	1007	761	107	1178	487	103
V.—Violent deaths	502	392	110	113	50	46	12	20	339	163	14	287	155	60
ORDERS.														
I.—1. Miasmatic diseases	2773	1398	1375	1085	1068	906	370	507	620	2153	96	2474	257	42
2. Enthetic diseases	37	22	15	18	10	24	2	1	9	28	3	34	3	
3. Dietic diseases	56	45	11	10	....	7	2	1	46	10	1	28	16	12
4. Parasitic diseases	17	10	7	10	7	14	1	1	....	17	....	17		
II.—1. Diathetic diseases	584	195	389	22	20	4	6	9	542	42	24	339	220	25
2. Tubercular diseases	3276	1660	1616	501	529	551	141	77	2246	1030	265	2311	825	140
III.—1. Diseases of nervous system	2255	1188	1067	634	579	690	241	164	1042	1213	130	1800	369	86
2. Diseases of organs of circulation	897	452	445	53	67	23	6	14	777	120	72	537	298	62
3. Diseases of respiratory organs	1761	930	831	405	330	355	165	121	1026	735	129	1200	495	66
4. Diseases of digestive organs	981	496	485	178	140	178	39	33	663	318	43	642	297	42
5. Diseases of urinary organs	407	252	155	33	24	4	....	14	350	57	30	259	109	39
6. Diseases of generative organs	72	....	72	....	4	....	1	....	68	4	1	44	27	1
7. Diseases of organs of locomotion	63	34	29	17	17	4	7	7	29	34	2	47	13	3
8. Diseases of integumentary system	8	5	3	2	....	1	....	....	6	2	....	6	2	
IV.—1. Developmental diseases of children	177	106	71	106	71	162	15	....	....	177	10	177		
2. Developmental diseases of adults	11	....	11	....	....	....	....	....	11	.....	....	5	6	
3. Developmental diseases of old people	728	250	478	....	....	....	....	....	728	.....	35	310	363	55
4. Diseases of nutrition	852	441	411	322	262	529	26	16	268	584	72	686	118	48
V.—1. Accident or negligence	428	332	96	112	50	46	12	20	266	162	13	251	127	50
3. Homicide	23	15	8	....	....	....	....	....	23	.....	1	15	4	4
4. Suicide	51	45	6	1	....	....	....	....	50	1	....	21	24	6
CLASS I.—Zymotic diseases—														
I.—ORDER 1. Miasmatic diseases	2773	1398	1375	1085	1068	906	370	507	620	2153	96	2474	257	42
Measles	8	3	5	3	5	5	....	3	....	8	1	8	....	
Scarlet fever	336	179	157	177	155	15	64	143	4	332	3	334	1	1
Diphtheria	321	147	174	141	169	27	58	145	11	310	4	315	6	
Quinsy	7	3	4	3	3	2	....	4	1	6	....	7	....	
Croup	291	162	129	162	129	30	62	143	....	291	5	290	1	
Hooping-cough	103	38	65	37	65	68	27	7	1	102	5	103	....	
Enteric fever	344	182	162	45	54	3	5	20	245	99	13	256	82	6
Typhus fever	1	1	....	....	....	....	....	....	1	.....	....	.....	1	
Erysipelas	83	45	38	19	15	26	3	4	49	34	5	62	18	3
Puerperal fever	41	....	41	....	2	....	....	....	39	2	2	21	17	3
Carbuncle	4	3	1	....	....	....	....	....	4	.....	....	3	....	1
Influenza	2	2	....	2	....	1	1	....	....	2	....	2	....	

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MORTUARY TABLE—*Continued.*

CAUSES OF DEATH.	Total.	Males.	Females.	Boys.	Girls.	Under 1 year.	1 to 2 years.	2 to 5 years.	Adults.	Minors.	People of color.	Nativity. United States.	Nativity. Foreign.	Nativity. Unknown.
CLASS I ORDER 1.—*Continued.*														
Dysentery	60	31	29	13	8	10	3	4	39	21	3	31	22	7
Diarrhœa	107	63	44	25	13	29	3	4	69	38	....	60	34	13
Cholera morbus	27	17	10	4	1	1	1	2	22	5	1	14	13	
Cholera infantum	804	395	409	395	409	662	131	8	....	804	48	802	2	
Intermittent fever	17	10	7	5	2	3	....	2	10	7	1	14	3	
Remittent fever	24	11	13	6	6	1	2	3	12	12	....	20	4	
Rheumatism	34	20	14	6	3	0	....	1	25	9	3	20	14	
Cerebro-spinal meningitis	62	31	31	23	24	15	8	8	15	47	1	53	9	
Pyæmia	51	36	15	11	2	3	2	2	38	13	1	29	17	5
Septicæmia	32	9	23	2	1	2	....	1	29	3	....	19	10	3
Yellow fever	2	2	....	....	....	....	....	....	2	....	....	1	1	
Smallpox	6	4	2	3	1	....	....	2	2	4	....	5	1	
Other zymotic diseases	6	4	2	3	1	3	....	1	2	4	....	5	1	
I.—ORDER 2. Enthetic diseases	37	22	15	18	10	24	2	1	9	28	3	34	3	
Syphilis	34	20	14	17	10	24	2	1	7	27	3	33	1	
Hydrophobia	3	2	1	1	....	....	....	....	2	1	....	1	2	
I.—ORDER 3. Dietic diseases	56	45	11	10	....	7	2	1	46	10	1	28	16	12
Purpura and scurvy	15	13	2	10	....	7	2	1	5	10	....	13	2	
Alcoholism	41	32	9	....	....	....	....	....	41	....	1	15	14	12
I.—ORDER 4. Parasitic diseases	17	10	7	10	7	14	1	1	....	17	....	17		
Thrush	16	10	6	10	6	14	1	....	....	16	....	16		
Worms	1	....	1	....	1	....	....	1	....	1	....	1		
CLASS II.—Constitutional diseases														
II.—ORDER 1. Diathetic diseases	584	195	389	22	20	8	6	9	542	42	24	339	220	25
Gout	4	2	2	1	....	....	....	....	3	1	....	3	....	1
Dropsy	161	66	95	14	11	....	3	6	136	25	12	108	49	4
Anæmia	26	9	17	2	5	3	2	1	19	7	....	18	7	1
Cancer	362	105	257	3	3	....	1	1	356	6	9	187	158	17
Gangrene	29	12	17	1	1	1	....	1	27	2	3	22	5	2
Leucocythæmia	2	1	1	1	....	....	....	....	1	1	....	1	1	
II.—ORDER 2. Tubercular diseases	3276	1660	1616	501	529	551	141	77	2246	1030	265	2311	825	140
Scrofula	31	19	12	13	10	16	2	1	8	23	4	29	1	1
Tabes mesenterica	649	337	312	316	294	471	91	34	39	610	70	622	23	4
Phthisis pulmonalis	2481	1233	1248	102	183	15	14	20	2196	285	182	1545	801	135
Hydrocephalus	115	71	44	70	42	49	34	22	3	112	9	115		
CLASS III.—Local diseases—														
III.—ORDER 1. Nervous diseases	2255	1188	1067	634	579	690	241	164	1042	1213	130	1890	369	86
Cephalitis	381	207	174	167	143	126	72	69	71	310	22	354	24	3
Myelitis	1	1	....	....	....	....	....	....	1	....	....	1		
Apoplexy	263	151	112	1	3	1	....	....	259	4	7	152	86	25
Paralysis	317	155	162	5	8	3	1	2	304	13	18	191	110	16
Softening of brain	113	66	47	....	1	....	....	....	112	1	1	57	47	9
Insanity	18	2	16	....	....	....	....	....	18	....	1	11	6	1
Epilepsy	45	23	22	1	4	....	....	....	40	5	2	31	8	6
Convulsions	644	308	336	299	306	405	123	61	39	605	50	628	12	4
Tetanus	45	24	21	21	9	19	....	....	15	30	2	34	9	2
Congestion of brain	266	150	116	99	79	103	31	21	88	178	16	227	36	3
Locomotor ataxy	3	3	....	....	....	....	....	....	3	....	....	2	1	
Shock	6	1	5	....	....	....	....	....	6	....	....	1	5	
Sunstroke	3	2	1	1	....	1	....	....	2	1	....	2	1	
Other diseases of brain, etc.	150	87	63	40	26	32	14	9	84	66	11	109	24	17
III.—ORDER 2. Diseases of organs of circulation	897	452	445	53	67	23	6	14	777	120	72	537	298	62
Pericarditis and effusion	48	24	24	4	8	1	1	1	36	12	1	34	13	1
Aneurism	25	19	6	....	....	....	....	....	25	....	4	11	10	4
Angina pectoris	24	14	10	2	....	....	....	1	22	2	....	14	9	1
Hypertrophy of heart	78	44	34	5	4	1	1	....	69	9	5	47	26	5
Embolism	12	5	7	....	....	....	....	....	12	....	1	4	7	1
Thrombosis	5	2	3	1	....	....	1	....	4	1	....	1	4	
Other diseases of heart, etc.	705	344	361	41	55	21	3	12	609	96	61	426	229	50

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MORTUARY TABLE—*Continued.*

CAUSES OF DEATH.	Total.	Males.	Females.	Boys.	Girls.	Under 1 year.	1 to 2 years.	2 to 5 years.	Adults.	Minors.	People of color.	Nativity. United States.	Nativity. Foreign.	Nativity. Unknown.
III.—ORDER 3. Diseases of respiratory organs	1761	930	831	405	330	355	165	121	1026	735	129	1200	495	66
Laryngitis	43	23	20	15	18	3	7	18	10	33	....	39	3	1
Bronchitis	297	151	146	105	96	118	57	16	96	201	26	232	60	5
Pleurisy	33	18	15	5	....	2	2	....	28	5	3	19	11	3
Pneumonia	1003	527	476	191	148	155	72	62	664	339	70	655	305	43
Hæmoptysis	53	29	24	5	....	2	....	....	48	5	8	27	24	2
Asthma	34	20	14	2	....	1	....	....	32	2	5	13	21	
Congestion of lungs	179	92	87	60	50	61	19	16	69	110	9	141	31	7
Other diseases of lung, etc.	119	70	49	22	18	13	8	9	79	40	8	74	40	5
III.—ORDER 4. Diseases of digestive organs	981	496	485	178	140	178	39	33	663	318	43	642	297	42
Pharyngitis	3	2	1	2	1	1	....	2	....	3	....	3		
Enteritis with gastritis	338	173	165	103	85	109	32	27	150	188	16	262	68	8
Peritonitis	193	71	122	19	21	7	....	1	153	40	9	129	56	8
Ulceration of intestines	13	8	5	....	1	....	1	....	12	1	....	8	4	1
Hernia	27	12	15	2	....	1	....	....	25	2	1	13	11	3
Intussusception	12	8	4	4	1	4	....	....	7	5	1	6	6	
Diseases of stomach, etc.	48	30	18	5	2	4	2	....	41	7	2	27	18	3
Diseases of intestines, etc.	77	41	36	23	14	30	1	1	50	37	6	58	17	2
Hepatitis	54	32	22	5	1	3	1	....	48	6	....	22	31	1
Jaundice	41	17	24	8	7	11	1	1	26	15	....	26	12	3
Diseases of liver, etc.	172	100	72	6	6	8	....	1	160	12	8	86	73	13
Diseases of spleen	3	2	1	1	1	....	1	....	1	2	....	2	1	
III.—ORDER 5. Diseases of urinary organs	407	252	155	33	24	4	....	14	350	57	30	259	109	39
Nephritis	31	15	16	4	3	....	....	3	24	7	2	25	6	
Ischuria	2	2	....	1	....	1	....	....	1	1	....	1	1	
Bright's disease	222	132	90	18	12	....	....	9	192	30	23	140	52	30
Uræmia	57	37	20	6	5	2	....	....	46	11	2	38	14	5
Diabetes	26	14	12	....	2	....	....	....	24	2	....	15	9	2
Calculus	1	1	....	....	....	....	....	....	1	....	....	1	....	
Cystitis	24	21	3	1	....	....	....	....	23	1	....	11	13	
Diseases of kidney, etc	44	30	14	3	2	1	....	2	39	5	3	28	14	2
III.—ORDER 6. Diseases of organs of generation	72	....	72	....	4	....	1	....	68	4	1	44	27	1
Ovarian dropsy	17	....	17	....	....	....	....	....	17	....	....	11	5	1
Diseases of uterus, etc.	55	....	55	....	4	....	1	....	51	4	1	33	22	
III.—ORDER 7. Diseases of organs of locomotion	63	34	29	17	17	4	7	7	29	34	2	47	13	3
Diseases of joints, etc.	63	34	29	17	17	4	7	7	29	34	2	47	13	3
III.—ORDER 8. Diseases of integumentary system	8	5	3	2	....	1	....	....	6	2	....	6	2	
Diseases of skin, etc.	8	5	3	2	....	1	....	....	6	2	....	6	2	
CLASS IV. — Developmental diseases—														
IV.—ORDER 1. Developmental diseases of children	177	106	71	106	71	162	15	....	....	177	10	177		
Cyanosis	119	70	49	70	49	115	4	....	....	119	8	119		
Spina bifida	10	8	2	8	2	10	....	....	....	10	1	10		
Other malformations	14	8	6	8	6	14	....	....	....	14	....	14		
Teething	34	20	14	20	14	23	11	....	....	34	1	34		
IV.—ORDER 2. Developmental diseases of adults	11	....	11	....	....	....	....	....	11	....	....	5	6	
Childbirth	11	....	11	....	....	....	....	....	11	....	....	5	6	
IV.—ORDER 3. Developmental diseases of old people	728	250	478	....	....	....	....	....	728	....	35	310	363	55
Old age	722	246	476	....	....	....	....	....	722	....	34	308	359	55
Senile gangrene	6	4	2	....	....	....	....	....	6	....	1	2	4	

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MORTUARY TABLE—*Concluded.*

CAUSES OF DEATH.	Total.	Males.	Females.	Boys.	Girls.	Under 1 year.	1 to 2 years.	2 to 5 years.	Adults.	Minors.	People of color.	Nativity.		
												United States.	Foreign.	Unknown.
IV.—Order 4. Diseases of nutrition—														
Atrophy and debility	852	441	411	322	262	529	26	16	268	584	72	686	118	48
Class V.—Violent deaths—														
V.—Order 1. Accident or negligence	428	332	96	112	50	46	12	20	266	162	13	251	127	50
Fractures, contusions, etc.	193	163	30	40	10	3	5	9	143	50	4	105	73	15
Wounds	18	17	1	10	....	2	....	....	8	10	....	12	6	
Burns and scalds	55	20	35	11	16	....	4	11	28	27	3	43	10	2
Poison	8	5	3	1	2	2	1	....	5	3	....	6	2	
Drowning	105	100	5	29	2	2	....	....	74	31	3	42	31	32
Suffocation	48	26	22	21	20	37	2	....	7	41	3	43	5	
Starvation	1	1	....	....	....	....	....	....	1	....	....	....	....	1
V.—Order 3. Homicide—														
Murder	23	15		....	....	....	....	....	23	....	1	15	4	4
V.—Order 4. Suicide	51	45	6	1	....	....	....	....	50	1	....	21	24	6
Wounds	23	21	2	....	....	....	....	....	23	....	....	7	13	3
Poison	11	11	....	....	....	....	....	....	11	....	....	7	3	1
Drowning	3	2	1	....	....	....	....	....	3	....	....	1	2	
Hanging	14	11	3	1	....	....	....	....	13	1	....	6	6	2
Causes not specified	16	12	4	9	....	7	....	....	7	9	1	12	2	2

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WILSON JEWELL, M.D., 1800–1867.

BY WM. T. TAYLOR, M.D.

How very soon are they forgotten when the places which they frequented and the halls they entered no longer re-echo their footsteps; when the friends they have met, and so often greeted, see them no more; for they have been taken to their last resting-place, and the cold, silent grave has covered them in, where many lie "unhonored and unsung," from having left "no footprints on the sands of time."

As "Old Mortality" would recut the names of the Covenanters on their tombstones, lest Father Time might obliterate them, and their memories be forgotten, so do I feel it my duty to present to you this evening a brief memoir of one almost forgotten member of this Society, who at one time occupied a very conspicuous place in this hall.

Twelve years have rolled on since one of the ex-presidents of this Society was laid in his peaceful grave, and yet in the Transactions of this Society, in those of the Medical Society of the State of Pennsylvania, or in those of the American Medical Association—of all which he was a member—I find no memoir of Dr. WILSON JEWELL.

On referring to the minutes of our Society, I found that at a special meeting, held November 7, 1867, there were some resolutions passed on the death of Dr. Wilson Jewell, expressive of his character, ability, and worth. Some time after, Dr. William Mayberry was appointed by the President of this Society to prepare an obituary of the deceased. He collected various papers and other materials for that purpose from his widow; but before he had commenced his sad duty, his own mind became clouded and the papers were lost, so that I have been unable to obtain all the information I had desired of my esteemed preceptor.

In the year 1800, on November 12th, the subject of this memoir was born. He was the son of Kenneth Jewell, a draper and tailor, who resided on Arch Street near Third, which locality, even in those days, was a busy part of our city. It was also celebrated for its historical associations, for near by stood the "Friends' Meeting-house," with its "burying-ground" inclosed by a brick wall extending to Fourth Street, where in those days were buried some of the oldest families of Philadelphia. In that plain old building the quiet Quakers still meet on the "first day" to worship God in spirit and in truth.

On Fourth Street below Arch, opposite the "burying-ground," was the "Old Academy," with its chapel reserved in the deed of purchase for "the use of itinerants as a preaching hall therein forever." This was the "College of Philadelphia," afterwards the University of Pennsylvania; and when the latter was removed to Ninth Street below Market, this academy was used as a preparatory school for classical students, where some of us older members received our first lessons in Latin grammar.

On this same street, at the corner of Cherry, was the old Lutheran

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church of Revolutionary fame, which was used by the British army for a hospital during their occupancy of the city.

At the northwest corner of Third and Arch Streets was the Presbyterian church, which was built by the followers of the celebrated George Whitefield, under the name of "New Lights." On Second Street below Arch was the First Baptist Church; and still further down, above Market Street, was and is still standing the venerable "Old Christ Church," where Washington and Franklin met with their families to attend divine service, and whose chiming bells still call together its worshippers.

It was in this locality, and amidst such surroundings, that Wilson Jewell spent his boyhood, and under the care and training of a pious mother he obtained those principles of religion and morality which guided him through his whole life. At an early age he became a member of the Baptist Church, interesting himself in the Sunday Schools, for which he wrote a few juvenile books on religious subjects, which were published by the Sunday School Union. He retained his fellowship with the Baptist denomination until his death, being elected and appointed to many offices of honor, trust, and usefulness amongst them.

I do not know who was his preceptor, nor where he received his preliminary education; but he attended his first course of medical lectures at the University of Pennsylvania in the winter of 1817 and 1818. At the next session his name does not appear on the record; but in the session of 1819 and 1820 he again was in the class, and attended the sessions regularly from that time until 1824, when he graduated, presenting for his thesis "Nux Vomica in Paralysis."

He then went on a voyage to China as medical officer on the ship New Jersey, under command of Captain Whitall, who sailed to Canton occasionally. This afforded him an opportunity of seeing some foreign lands, and gave him plenty of time for pursuing his studies. Although I have no account of his voyage, yet I am satisfied that whilst crossing the seas he was storing his mind with knowledge and gaining information which was useful to him in after years.

A voyage to China, fifty years ago, was a very different undertaking than at present, when steam navigation has greatly shortened the distance. Then only a few of its cities and towns were visited by travellers, since no "barbarian" was allowed access to the interior, and most of the information which could be obtained of the "Celestial Empire" was from its seaports.

From Canton he sailed to Calcutta, where he found a British vessel, which had lost its surgeon; and as that position was offered to him, he willingly accepted it, and remained in the British service for some months. Before returning to America, he visited London and other cities of the old world.

In 1825 he married Miss Rachel Lyon, a young lady, an orphan who resided with her guardian, the Rev. Dr. Wm. Staughton, a Baptist clergyman, President of the College at Georgetown, in the District of Columbia.

Taking his young wife with him, he first located himself at

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Branchtown, Montgomery County, Pa., where he remained about two years; from there he removed to Hamilton Village, over the Schuylkill River. But he soon became tired of that place, for he wanted a wider field for his operations; so that in 1828 we find him in Philadelphia, in the District of the Northern Liberties, where he continued to practise his profession with varying success for several years; but as his family was increasing, and his expenses necessarily followed in the same course, he was obliged to devote all of his energies to their support, for although he obtained a fair share of patronage, yet his pay was limited, as but few wealthy families resided there.

In 1832 the cholera made its appearance in Philadelphia, and Dr. Jewell accompanied the committee which was appointed by the Board of Health to visit Quebec, to learn something of the pathology and treatment of that terrible disease.

A medical man, named Bostwick, of the Baptist denomination, came to this city in 1837, from Illinois, then in the "far West," and becoming acquainted with Dr. Jewell, induced him to give up his practice and go to Upper Alton, Illinois, where he had established a large practice, which he would relinquish in Dr. Jewell's favor. He also represented himself as being the owner of some land, and was desirous of forming a village near Upper Alton, if the Doctor would join him in the undertaking. The inducements offered were so great that Dr. Jewell, having sold some property which his wife possessed, and collected what money he could, took his family and accompanied this stranger to his western home.

On their arrival they were quartered in the dwelling of Dr. B. until a frame house could be built for them to occupy, which, when finished, was to be the nucleus of the town of Randolph, to be situated a few miles from Alton, where Dr. Jewell was to obtain practice, and acquire his fortune. He, however, soon discovered that the western doctor's practice was quite limited, and that his patients were few and scattered; so that the golden promises of wealth and prosperity could never be realized there. Yet he remained until 1839, when his wife, being much dissatisfied with the condition of their affairs, persuaded him quite easily to return to the city of his birth.

They accordingly came again to Philadelphia, where he found himself without either money or practice, and a family depending on him for support. But his hopes were buoyant, and, having borrowed one hundred dollars, he purchased a small apothecary shop at the corner of Third and Tamany Streets, where he commenced practice again in connection with the sale of medicines; his family occupying the dwelling part of the house. At this time he was aided by his former pastor, the Rev. Joseph H Kennard, and the members of his church, many of whom employed him when they required medical attendance; so that he was soon busily engaged in practice again, and before long his professional calls were so many that he sold the shop, and removed to a private dwelling a short distance up on the same street; from thence he removed again to a larger house on Fourth Street above Noble, where he remained

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until 1845, when he purchased a house on Sixth Street above Willow, which he occupied during the rest of his life.

Dr. Jewell was a member of the Board of Health for many years, and for some time its president. He always took an active part in its proceedings, and was particularly interested in all measures which tended to improve the healthfulness of our city; consequently he devoted much attention to hygiene. In a report read before the Northern Medical Association in 1851, he says: "Hygiene is the handmaid of medicine, and when properly understood and appreciated, is the means of saving thousands from an untimely grave. Hygiene is health; perfect health that condition of things which gives to its possessor strength, energy, power, buoyancy of spirits, and comprehends the perfect and harmonious performance of all the functions of the body."

"As medical men, members of a benevolent and godlike profession, the custodians of life and health, watchmen at the portals through which disease, with its feverish and multiplied train of consequences, enters, causing impaired health, physical debility, and oftentimes death among our citizens, it belongs to us to inquire into this great subject of *public* health—to discuss it, survey it, analyze it, and finally to preserve it, by the removal of numerous existing evils, the product of a neglect of the laws of hygiene. Furthermore, to suggest such measures as ought to be adopted for the improvement of public health, or, in one word, to remove the preventable causes of disease.

"We are not of that number who look upon the medical profession as exclusively a curative one, and designed alone to alleviate the physical evils to which humanity is subject; having nothing to do with those great elementary principles that determine the fulness of unalloyed health and length of days. On the other hand, we have always viewed our profession as conservative; that it belongs to us as much to prevent disease, and to employ the means which our position and knowledge have placed within our reach, for the promotion and preservation of health, as to remove debility, to cure sickness, or to heal injuries. How much better, how much more philosophical and philanthropic, to endeavor to arrest the march of disease by a timely removal of its causes, appreciable only to the intelligent physician, than to wait until they have penetrated and poisoned the fountains of life, and then attempt to repair the evil. We believe it is as much a part of our profession to teach the people how to avoid disease, and how to live without being sick, as to cure them when their systems have become undermined from any of the distressing maladies which 'flesh is heir to.'"

He also devoted his attention to "Vital Statistics," which he called the "twin brother of hygiene," and saw the importance of a Registration law of births, marriages, and deaths, which he early advocated; and it was mainly through his unceasing and persistent efforts that the law was framed and passed which now exists.

Whilst connected with the Board of Health, he carefully arranged from their records some valuable mortuary tables of the mortality of Philadelphia during the years 1852 and 1853 which were published in the *Medical Examiner*. He also read before the College

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of Physicians an interesting report of the yellow fever which prevailed in our city during the summer of 1853.

Dr. Jewell was one of the founders of this Society, and an active member at all times, being its president in 1856, and at the expiration of his term of office he delivered an address on the subject of "Quarantine."

In 1857 he was president of the Quarantine and Sanitary Commission which met in Philadelphia. He was elected vice-president of the American Medical Association in 1862, and in consequence of the death of the venerable president, Dr. Eli Ives, it became his duty to deliver the retiring address, and, as our civil war was then raging, he referred to "the nobleness of character of the members of our profession who could not remain idle spectators when the exigencies of the times demanded the services of their calling. Leaving the comforts of the home circle; the rewards of a remunerative practice, and the peaceful pursuits of their chosen vocation, with a loyal and heroic faith in the justness of the cause, associated with an ardent love of country, they did not hesitate long, ere they were found enduring the privations of the camp, or risking more dangerous positions on the battle-field. Wherever danger is the greatest, or the struggle the fiercest, there may be seen the surgeon, with a laudable and patriotic devotion, cheering the soldier or the sailor on to duty, or administering aid and comfort to the wounded. When the smoke of the battle has cleared away, then with a noble heroism and unshrinking firmness, surrounded by death, desolation, and the horrors following a sanguinary struggle of arms, he still remains at his post on the field, or around the couch of the suffering, the sick, and the dying; cool, firm, self-possessed, amid confusion and turmoil of excitement, engaged in deeds of mercy and kindness; mitigating the havoc of the battle, preferring rather the risk of becoming a prisoner of war than abandoning the wounded in his care."

In the same address he also refers to his favorite subject Hygiene, wherein he says: "I regard it as an established principle, that the true aim of the physician, and it should ever constitute his highest, most exalted ambition, is to avert those evils, sanitary and moral, physical and mental, within reach of science, that are destructive to health and dangerous to life.

"The evils that underlie disease should be sought out, encountered, and arrested at the fountain head. If neglected, and their insidious approach overlooked, the infectious current, swollen by a thousand tributaries distilling and scattering its lurid streams of pestilential poison through the atmosphere of luxuriant fields, redolent with health and life, will in time ferment into a devastating epidemic, and like another destroyer, carry in its fearful trail to every family desolation and death."

In 1863, his eldest daughter who had married a Southern gentleman, and resided in Clinton, Louisiana, died of child-bed fever, and he was unable to reach her home until she had expired, being delayed by martial laws. This was his greatest grief, for she was his favorite child, and for years he mourned her loss.

The subject of our memoir was president of the Medical Society

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of the State of Pennsylvania, which held its fifteenth session in this very hall in June, 1864, when he delivered an address on the formation and progress of the College of Physicians, with an account of some of the fathers of medicine who lived and practised in this city during the last century.

On May 22, 1865, death again entered his home, and he was obliged to part with his affectionate wife, who had been the companion of his youth, his manhood, and his declining years; she had shared his joys and his sorrows, his struggles and triumphs. They had lived happily together for forty years, but when apparently in robust health she died from an attack of pneumonia. She had been the mother of nine children; three of them died in infancy, whilst six grew to maturity; but only two, a son and a daughter, are living now.

In February, 1867, Dr. Jewell took a voyage to Cuba, where he spent several weeks; the account of which, however, has been lost with other memoranda.

On April 18th of the same year he married Mrs. Charlotte McMullen, a widow who had been a patient of his for many years; and on the 20th they sailed for Europe where they remained four months, visiting England, Ireland, and the Continent. Whilst in Paris, he was made an honorary member of a medical society—his widow informed me—and the same honor was conferred on him in Dublin. Several letters were sent from Paris to him, after his death, inviting him to attend a convention to be held there in 1870.

Whilst at Milan he was attacked with pain, oppressed breathing, vertigo, and a loss of consciousness, which he told her arose from a valvular disease of the heart, with which he had been affected for several years, but that she need not be alarmed as he hoped with care to live many years. They returned home sooner than they had intended in consequence of the serious illness of his eldest son, who died two weeks after their arrival.

His second marriage was of short duration, for on November 4, 1867, soon after he had eaten his dinner, whilst sitting in his office reading his Bible, he died suddenly. A post mortem examination revealed hypertrophy with ossification of the valves of the heart. He was buried beside his first wife in Monument Cemetery.

Dr. Jewell was a large man, tall, erect, of a somewhat portly physique. He possessed a strong and vigorous intellect, and was determined in his opinions. He had indomitable perseverance, and was ever busy with his head or his pen if his professional engagements did not occupy his time.

He was faithful in the discharge of his duties to his patients, whether rich or poor, and had their respect and confidence.

He was high-toned, dignified, and honorable in his intercourse with his professional brethren, and was ever ready to maintain the dignity and honor of our noble profession. He despised quackery in every form, and was a zealous supporter of all organizations for its suppression, and devoted to the elevation and purity of medical science.

He was a good husband, a kind father, a generous and warm-

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hearted friend, an advocate of temperance, good morals and education, a public-spirited citizen, and a sincere, earnest, and steadfast Christian.

FRANCIS FONTAINE MAURY, M.D., 1840–1879.

BY SAMUEL W. GROSS, M.D.

Dr. Francis Fontaine Maury, the subject of this biographical sketch, was born at Danville, Boyle County, Kentucky, on the 9th of August, 1840. His mother was Eliza Chipman, of Middlebury, Vermont, and his father was Matthew Fontaine Maury, an Episcopal clergyman, who emigrated to Kentucky from Albemarle, Virginia. Through his father, he was a lineal descendant of the noble Huguenot family De la Fontaine, of the province of Maine, in France, the early members of which became converts to Protestantism about 1535. The American branch of the family dates back to the Rev. Francis Fontaine, who fled from France to England in consequence of religious persecution after the revocation of the Edict of Nantes, and whose daughter, Mary Anne, married, in 1716, Matthew Maury, a refugee from France to Dublin, among whose family there was a cardinal of the Church of Rome. In the third year of their wedded life, Mr. and Mrs. Maury arrived in Virginia, and from their union resulted a numerous posterity, the male members of which appear to have had a predilection for the Episcopal ministry; although one—the late Matthew Fontaine Maury, formerly a commander in the U. S. Navy—conferred incalculable benefit upon the whole human race by his discoveries pertaining to the physical geography of the sea.

Of the early life of Dr. Maury I know nothing, except that it was passed on a farm near Danville, which is famous in the medical history of this country as being the scene of the labors of McDowell, the father of ovariotomy. He received the degree of Bachelor of Arts, at Centre College, on the 28th of June, 1860, and in the fall of that year entered the Medical Department of the University of Virginia, which has always ranked high for its thorough course of instruction. Having passed through one full term of pupilage in that institution, and being desirous of obtaining a more practical medical education, he matriculated at the Jefferson Medical College in September, 1861, as a private student of Professor Gross, who then and afterwards took the most lively interest in promoting his studies and welfare, and graduated as Doctor of Medicine, on the 8th of March, 1862, at the age of twenty-one years. One month before receiving his diploma he was appointed to fill an unexpired term as resident physician in the Philadelphia Hospital, and immediately after his graduation he was regularly elected to the same position, which he filled for one year, or until the spring of 1863. While serving in this capacity he succeeded, through his winning and modest manners, and a more than usual attention to his duties, in making an impression which did him good service in securing the positions which he subsequently held in that charity.

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On the 1st of April, 1863, Dr. Maury was commissioned Acting Assistant Surgeon U. S. Army, and was assigned to duty at the South Street General Hospital, where he served as executive officer until the 15th of April, 1865. In October, 1863, he was made clinical assistant to Professor Gross, and engaged in private teaching, and in the following spring became the chief of the surgical clinic in the Jefferson Medical College, a position which he held for upwards of three years.

In these several positions Dr. Maury showed himself to be possessed of indomitable energy, of powers of close observation, and of a retentive memory. Hence it is not surprising that he was appointed accoucheur to the Philadelphia Hospital in October, 1865, and lecturer on venereal and cutaneous diseases on the establishment of the summer course in the Jefferson Medical College, in April, 1866; a position which he held until the time of his death. On the retirement of Professor Gross from the Philadelphia Hospital, in October, 1866, Dr. Maury was appointed one of the surgeons to that charity, although he was only twenty-six years of age, and had been a member of the profession less than five years. To have attained so high a niche in the temple of surgery, and to have secured so enviable a place in a hospital which had been rendered famous by the teaching of Hodge, Stillé, Agnew, Pancoast, and Gross, at so early an age, is well calculated to strike one with amazement. It was not attained by political influence. Dr. Maury had the indorsement of the entire faculty of his Alma Mater and of many prominent citizens to whom he had endeared himself by his attractive manners and his close and persevering devotion to his professional duties. It was here that he laid the foundation of his reputation as an accomplished surgeon and teacher. During the first few years of his connection with the institution, or before he was largely engaged in private practice, no one could have surpassed him in his attention to his cases, although he was not infrequently in bad health. After a severe operation, he thought nothing of visiting his patient several times during the day, or even of hiring a carriage, despite his moderate pecuniary circumstances, to make a night visit, if he deemed it necessary. He was also in the habit of providing such luxuries for his wards as the dietary of the hospital did not afford. Hence it was that he soon became a great favorite, and his personal magnetism was such that he was looked up to by his superiors, equals, and inferiors, and I much doubt if any of the visiting staff ever exercised the same influence over the managing officers of the house that he did. The residents swore by him; the patients and nurses worshipped him.

In 1868 Dr. Maury was married to Katherine, the youngest daughter of Charles Ingersoll, of this city. She was a woman of great loveliness, and died on the 1st of April, 1879, or only nine weeks before his own demise. They leave two boys, the one ten, and the other nine years of age.

Dr. Maury was one of the early members of the American Dermatological Association, and was elected a member of the Pathological Society of Philadelphia in 1865; of the College of Physicians of Philadelphia in 1866; of the Academy of Natural Sciences in 1868;

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and of the Philadelphia County Medical Society in 1877. On the establishment of the Jefferson Medical College Hospital, in the spring of 1877, he was appointed one of its surgeons. He was also consulting surgeon to the State Hospital for Women and Infants, and to the Northern Dispensary. For several years he was surgeon to the First Troop Philadelphia City Cavalry; and he served as physician to Coroner Goddard for eighteen months.

In the latter part of March, 1879, while travelling in Texas, Dr. Maury was informed of the serious illness of his wife. Reaching home after a rapid and fatiguing journey, he found that she had expired twenty-four hours previously. At the grave he was seized with a chill, and took to his bed, whence he emerged in a state of great prostration. With a view to recuperating his strength, he made a visit to Atlantic City, but without benefit, and it was quite evident to his friends that his end was near. Shortly before his death, which occurred on the evening of June 4, in the thirty-ninth year of his age, he was seized with symptoms of acute Bright's disease, from the combined effects of which and of œdema of the lungs, as shown by post-mortem inspection, he succumbed.

As a surgeon, Dr. Maury was as cool and dexterous in execution as he was sound in judgment. Among his more important operations, the majority of which were as successful as they were brilliant, and in most of which I acted as his assistant, may be mentioned ligation of the right common carotid and subclavian arteries for aneurism of the aorta; gastrotomy for syphilitic stricture of the œsophagus, which he was the first to perform in this country; excision of a portion of the brachial plexus of nerves for painful neuroma of the skin of the upper extremity, which is the only case of the kind on record; the extirpation of two large cystic goitres; the removal of an enormous keloid tumor which encircled the neck; and four plastic operations for the relief of exstrophy of the bladder, in which the flap was taken from the perineum and scrotum. In addition to these, he had a recovery after amputation at the hip-joint, and after excision, respectively, of the hip and knee, and was eminently fortunate in his results after lithotomy and lithotrity. Dr. Maury was singularly averse to writing, so that his contributions to periodical medical literature were fragmentary. In conjunction with Dr. Duhring, he edited two volumes of the *Photographic Review of Medicine and Surgery* for which, however, he only wrote four articles; and, in connection with the same gentleman, he published an account of his operation of excision of the brachial plexus in the *American Journal of the Medical Sciences* for July, 1874. His last contribution to the same periodical for January, 1878, written jointly by him and Dr. Dulles, is entitled, "Tattooing as a Means of Communicating Syphilis," and is as practical as it is interesting.

His lectures on Cutaneous and Venereal Diseases in the summer course of the Jefferson Medical College, and on Clinical Surgery at the Philadelphia Hospital, were deservedly popular, and never failed to attract large and attentive audiences. He was particularly happy in imparting his knowledge to his classes, and his style was eminently clear and impressive.

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Dr. Maury was not only an excellent surgeon, but a most successful general practitioner of medicine. For several years before his death he enjoyed a lucrative practice, which embraced all classes of society. By his friends—and their name was legion—he was greatly admired, and he was beloved and trusted by his patients, to whom he was as attentive and as gentle as a woman. To his sympathetic and genial manners, which were almost magnetic, was due, in great measure, the wonderful influence he exerted over his fellowmen, and to his persuasive tongue and untiring efforts the trustees of the Jefferson Medical College Hospital owe a debt of gratitude for his aid in securing large subscriptions for the erection and maintenance of that great charity.

FRANCIS GARDEN SMYTH, M.D., 1843–1879.

BY EDW. J. NOLAN, M.D.

Dr. Francis Garden Smyth was born in the district of Moyamensing, Philadelphia, a few yards from where he afterwards uninterruptedly lived, on Dec. 29, 1843.

His father, Eugene Smyth, was a member of a prosperous family of Catholic merchants of the County Roscommon, Ireland, where he resided until a few years prior to the birth of his only child, the subject of the present notice. Although debarred from entering Trinity College by the intolerance of the British Government, which at that time required all matriculates to subscribe to the thirty-nine articles of the established church, Mr. Smyth was yet able to acquire a superior education, especially proving himself an accomplished classical scholar. His intellectual endowments were, in truth, almost the only capital he brought with him to his new home, as his family had suffered reverses of fortunes, consequent, I believe, upon their fidelity to their religious convictions.

Mr. Smyth was gifted in an eminent degree with all the good qualities which peculiarly distinguish the people of the west of Ireland. The soul of hospitality, impulsive, generous, and charitable in the truest sense of never dwelling upon a fault where a virtue could be found to counterbalance it, he endeared himself to a large circle of friends soon after his arrival in this country and at the birth of his son was comfortably settled as a teacher.

The first years of Frank's life were as uneventful as such usually are, and his education began in 1849, when he was six years old, at the Jackson public school of which his father was at that time the principal. There is no reason to doubt, however, that before this the influence exerted upon him at home by his mother, who was a lady of liberal education, and by his father, who afterwards so carefully watched over his intellectual training, had already encouraged that fondness for study which later in life determined his career. He continued to attend the Jackson public school until 1854, when his father was deprived of his position during the notable Know-nothing agitation of that year.

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Mr. Smyth's ability as a teacher had, however, by this time become so well known that he was not allowed to remain long unemployed. In June, 1855, he was appointed by the Hebrew Educational Society to the position of principal of their school, where his son's education was conducted under his direct supervision during the next four years. The impression produced on both father and son by the personal kindness and enlightened liberality of the people with whom they were thus thrown into communication was the more favorable and lasting from its sharp contrast with the stupid bigotry of their former political directors.

In September, 1859, young Smyth passed the examination for admission to the Freshman class of the University of Pennsylvania, and after completing the usual four years' attendance he graduated as Bachelor of Arts on July 3, 1863.

Fully impressed with the conviction that at his age every day spent in idleness was an irretrievable loss he matriculated in October of the same year in the Medical Department of the University, and after a faithful attendance upon three courses of lectures he took his degree of Doctor of Medicine in March, 1866. In the following July he received in the usual course the diploma of Master of Arts from the University.

The spirit which had prompted him to lose no time between his graduation from the Department of Arts and his entrance of the Medical Department of the University, now caused him to enter at once upon the active duties of his profession. He established his office in the house where he had lived the greater part of his life, and offered his services to people who had known him from birth. The encouragement he received was satisfactory, and he soon acquired a practice which was reasonably remunerative although it never grew to the extent warranted by his professional ability. This was not owing to any lack of appreciation on the part of the people of the district in which he practised, but to their inability as a rule to award to an accomplished physician a honorarium proportionate to the value of his services. No other section, probably, of the county of Philadelphia, affords less encouragement to the ambitious practitioner than the district including the old townships of Moyamensing and Passyunk, extending from the thickly settled portions immediately below South Street to the scattered truck farms of the Neck. It is this part of the city which contains the greatest number of those convenient but humble edifices which have given to Philadelphia the enviable title of the City of Homes. These houses, four-roomed, with a swallow's nest of a bath-room stuck on at the back, are for the most part owned by the inhabitants, who are generally intelligent and thrifty and have acquired possession of their modicum of real estate through the operation of that admirable system of building societies which has been such an encouragement to well directed economy among the working classes. The great majority of these people are dependent upon their daily work for subsistence, and, especially in periods of depression, they are apt, both from necessity and choice, to depend in case of sickness upon a dose of paregoric obtained at the nearest drug store, rather than incur the expense of professional advice. It is not easy, indeed,

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in the entire district, to find a druggist who is not to some extent a prescriber, a fact which operates greatly to the detriment of the regular practitioner. This state of things was so fully appreciated by Dr. Smyth that, although he had no reason to complain of his success when compared with that of his professional brethren of the neighborhood, he determined within the last year of his life to remove to another district, and would probably have done so had he been spared.

Shortly after his graduation he was appointed physician to the Guardians of the Poor for the Second District. The professional experience thus acquired was of value, and the fidelity with which he attended to the poor committed to his care was characteristic of the man and his mode of work. He made no distinction between those from whom he collected his regular fees and the people who had nothing to give him but thanks, and who, it must be confessed, are not always even thankful as in some cases they believe, and indeed assert, that the Guardian Doctor being "in the employ of the government" deserves no thanks for attending those who, if not taxpayers, are at all events voters. Such ingratitude is not, however, common; and the appreciation of the endeavor to mitigate suffering is generally sincere even though it be not eloquently expressed. I have had many opportunities of observing the affectionate regard in which Dr. Smyth was held by those who were sent to him by the Visitor of the Poor and who afterwards came under my own professional care.

In the mean time his private practice had been steadily increasing until, shortly after the breaking out of the smallpox epidemic of 1871, he was compelled by the number of his engagements to resign his public appointment.

The first great sorrow of his life came upon him in 1867, when his father died suddenly of apoplexy. The two had been more intimately associated than is always the case with father and son, as the genial, sympathetic nature of the elder had enabled him to enter fully into the boyish hopes and pleasures of the one whose spiritual and temporal welfare had been the chief care of his life.

The necessity for renewed application was now evident to Dr. Smyth, and, stimulated by the encouragement of his mother, who was yet spared to him, his attention to his professional work became even more earnest than before. In 1870 he was elected a member of the College of Physicians, and in 1872 he extended his associations and interests by joining the Academy of Natural Sciences, an institution with which he was always in sympathy, although his professional duties prevented him from taking an active part in its work. In 1877 he was elected a member of the County Medical Society, and shortly afterwards of the Pathological Society. He was a frequent and interested attendant at the meetings of both, as he considered the time well spent which was passed in furthering, even passively, the good work of such societies. He never took an active part in the proceedings, as his innate modesty disposed him rather to listen to the wisdom of others than to relate the professional experience with which his mind was well stored.

In August, 1872, the monotony of his daily work was broken by

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a trip to the Sweet Chalybeate Springs of Virginia as the professional adviser of the Rev. John McAnany. He remained away for about ten days, during which time he availed himself as fully as possible of the opportunity afforded to study, not only the claims of the locality as a health resort, but also the peculiarities of the people of the districts visited.

In April, 1875, he was again deeply afflicted by the death of his mother, after a few days' illness, of pneumonia. In November of the same year he was married to Mrs. Mary Guckert, the sister of Dr. Robert B. Cruice, who survives him without issue.

In September, 1876, he was appointed a delegate to the International Medical Congress, held in Philadelphia. In 1878 he served as a delegate to the State Medical Society, and attended the session held in Pittsburg. He also attended the meeting of the same society held in Chester in the spring of last year. These and all other movements for the advancement of the general interests of the profession met with his hearty encouragement and support.

Dr. Smyth had enjoyed almost uninterrupted good health from the time of childhood until within a few months of his death. Early in the spring of 1879 he complained of tenderness and congestion of the fauces, which increased to such a degree that his efforts to obtain relief by the expectoration of mucus were incessant and painful. Believing that the trouble depended upon an elongated uvula, in May he caused it to be cut, and at this time the evidences of mental disorder first became apparent to his wife and others intimately associated with him. It became almost impossible to distract his attention from the state of his own health. To his uneasiness on this score was soon added an increasing anxiety regarding his patients. Trivial disorders were considered by him to be of the gravest character; a dread of having prescribed incorrectly took possession of him. One of the most amiable tracts of his character, his consideration for the feelings of others, became morbidly exaggerated, and he lived in continual dread of having given offence to his friends and patients.

His condition rapidly became such as to cause the most serious alarm, although his friends still clung to the hope that all these symptoms were owing to overwork, and that rest and change of scene only were required to effect a return to his usual good health and spirits. This, however, did not prove to be the case, and his anxious hallucinations regarding himself and others increased in strength and constancy until July 24, when he was relieved by death from suffering which toward the last amounted to indescribable mental anguish. True to the faith of his forefathers, he received during his last hours all the spiritual consolation which could be administered to one in his mental condition. No post-mortem examination was made, and it is therefore impossible to determine the lesion upon which the train of symptoms depended.

This is the brief record of the uneventful life of one whose memory will be cherished by all who knew him as that of a singularly amiable and conscientious Christian gentleman. His leading characteristics were moderation and what Matthew Arnold calls "sweet reasonableness." His mental tone was the habit of know-

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ing of one born and bred among cultured people, and not at all the obtrusive intelligence of the self-educated man, or of him who is forced to contrast his own acquirements with the lack of them in his associates. Holding decided views himself on all subjects of large interest to society, he was always tolerant of those who differed from him where an honest difference of opinion were possible. His generous appreciation of both effort and accomplishment on the part of others was never weakened by the slightest suspicion of envy. The world was full of freshness and delight to him, and his temperament was such as keeps one young in spite of years. Those who were associated with him when the world brought its treasures to Fairmount Park in 1876, will long remember how universal was his sympathy with every form of human activity, whether exhibited in a piece of Japanese art-work or the operation of the huge Corliss engine, while the varied types of character met with from day to day were a source of apparently inexhaustible delight, bringing into full exercise his sense of humor, which was acute without being caustic or ill-natured. By association with the members of the societies to which he belonged, and by reading the current magazines, he kept well abreast with the progress of medical science. His reading, however, was not confined to purely professional literature. He devoted much of his spare time during the last winter of his life to the study of German, and he was also engaged upon a monograph on the life and times of Henry VI. of France, with special reference to that episode known in history as the Grand Design. This essay, although unfinished, furnishes evidence of wide reading and much critical acumen.

As a physician he was profoundly conscientious, the welfare of the patient being, under all circumstances, his first consideration. Although entering heartily into all forms of rational enjoyment, he never allowed a social engagement to interfere with his professional work, and his sacrifice of personal convenience to his sense of duty was, as it must be in the case of every conscientious physician, frequent and great. The code of ethics of his profession was to him second in authority only to the precepts of his religion. He regarded a quack as an unclean thing, entirely outside of the exercise of his usual broad charity. Indeed, deceit and pretence in every form were held by him as the two sins for which there could be no extenuation.

Gentle, generous, and true, he tried, with the strength that was in him, to fulfil his obligations to both God and man.

The world is not so rich in such men but that we should mourn for them when they die.

JAMES MONROE BOISNOT, M.D., 1836–1880.

BY GEORGE W. VOGLER, M.D.

Dr. JAMES MONROE BOISNOT was born in Somerset Co., New Jersey, on the 20th, of July, 1836.

He was third of five children; four boys and one girl. On his

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father's side he was of French descent. His grandfather, a French Huguenot, was among those unfortunate ones who were compelled to fly to this country, during the religious persecutions of that race, and settled at Princeton, N. J. His mother was an American. Dr. Boisnot's early life was spent on his father's farm, but being of a restless nature, and fond of study, it was decided to equip him for a professional career. At the age of fourteen he attended the Carlisle Seminary, N. Y., and, later, attended the Trenton Academy, N. J., from which he graduated July 16, 1856, carrying off the prize for the best essay, his subject being "The Labyrinth of Thought." He commenced the study of medicine the following winter, and graduated from the University of Pennsylvania, March, 1858, in the 22d year of his age. Shortly after graduating, he established himself in the practice of his profession, in this city, on Fifth Street below Green. The same year, 1858, he was elected visiting physician to the Northern Dispensary. In July, 1861, he was appointed surgeon to the 98th Reg. Penna. Vols. In 1863 he served the 16th and Filbert, 23d and Filbert, and Turner's Lane Hospitals. His health at this time was quite poor, he never having fully recovered from a severe attack of typhoid pneumonia, contracted upon the field from exposure and hardships, and which unfitted him for further active service. It was also about this time, March, 1863, that he received the appointment as surgeon to the U. S. Volunteers, but his impaired health would not allow him to enter upon its duties. After some months, however, he convalesced sufficiently to follow Dr. D. Hayes Agnew, as lecturer upon operative surgery in the old Philadelphia School of Anatomy and Surgery in Chant Street, since torn down, with the old University and other buildings, to make way for the new post-office. This extra strain as a lecturer and teacher upon his already delicate state of health proved too great, and hemorrhage from the lungs soon set in. He lay for a long time hovering between life and death, but finally made what was looked upon by his professional friends as a miraculous escape from death from phthsis pulmonalis. As soon as able he again commenced private practice, in the spring of 1866.

Nothing of special notice took place in the next ten years of his history, except that he rapidly built up a lucrative business among the first families, in the upper part of the city, making surgery his specialty, in which branch he gained considerable reputation for his skill as an operator, and for the successful results obtained from his cases. During this time he was elected surgeon to the German Hospital, which position he resigned in 1873, and was also elected consulting surgeon to the Northern Dispensary.

In 1876 the doctor weighed from 175 to 180 pounds, and was enjoying excellent health. This state of things was brought about by the great care he took of himself, and the constant daily use for some years of cod-liver oil, beef essence, raw beef, etc. A little previous to this time he again became desirous to lecture, often saying to me in his jocular way, that he was getting "fat, lazy, and rusty, and was anxious to stir up again." Therefore, in 1875, he founded the present Philadelphia School of Anatomy and Operative Surgery situated on Hunter Street. He entered into the enterprise

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with his accustomed dash and vigor, and with the sole object of making it, to quote from the circular, "A Preparatory and Practical School for giving instructions in Practical Anatomy, Minor and Operative Surgery, to meet the want heretofore felt by those who have sought to grasp all offered them in a winter's course at college, and by so doing, eventually found that they were compelled to pass much that is not only valuable, but necessary in the beginning of their practice." But alas! his bright hopes were soon to be blasted.

The extra wear and tear of lecturing, and running this institution in addition to his private practice, soon began to tell on his strength. Slowly and surely his old enemy, cough, again began to creep on, and in spite of his strong will and ambitious disposition, he was compelled to relinquish the duties of his pet object, after lecturing for two seasons. From this time on he steadily grew worse, notwithstanding all plans of treatment, though up to within a very short time of his decease his indomitable will always clung to the hope of another restoration to health, as in the former attack. In May of last year a severe hemorrhage set in, and from this period on he rapidly became worse, until death relieved him of his suffering on the morning of October 30, 1879. He was conscious to the very last, and with Christian fortitude bore his suffering without complaint. A few hours previous to the end, he remarked to me, "If my mind were not so clear, it would not be so hard to die." Except the occasional wetting of his lips with water, he steadfastly refused to take any nourishment or medicine during the last two or three days of his life.

His remains were interred at Mount Moriah Cemetery, the funeral services being conducted by his warm personal friend, Rev. H. S. Hoffman, of the Trinity Moravian Church, assisted by the Rev. Messrs. Ricksecker and Klopp.

With the assistance of Dr. C. S. Baker, I made a post-mortem examination of the body, and found complete pleuritic adhesions and a large cavity at the apex of the left lung, with extensive disease of both lungs—grayish tubercular points deposited everywhere throughout these organs.

The doctor always entertained a strong dislike against preserving a corpse in ice, and one of his last wishes was to have no ice about his remains, which necessitated us to inject the body with arsenic to properly preserve it.

It may be stated here that upon tracing back as far as possible the history of his ancestry, no signs of hereditary consumption are apparent. Besides causing his own death, phthisis pulmonalis has swept away within a few years a favorite son—a lad fourteen years of age—and also a brother.

Though incumbered by an extensive family practice, Dr. Boisnot contributed considerable to the literature of medicine, to the secular and public press. The writing of poetry was a pleasant pastime to him.

As a surgeon he certainly had excellent results from his cases. He was a good operator, and conscientiously favored and followed conservative surgery.

He had the very rare fortune of meeting with a case of simulta-

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neous dislocation of both hip joints, resulting from a crushing fall of a sack of wool. Perfect reduction by manipulation was obtained, and a complete recovery made. In addition to this case, Professor Gross quotes but two other cases of simultaneous dislocation of both hip-joints—one by Professor Gibson; the other by Dr. Couper, of London.

He was also the inventor of several surgical appliances, chief among which might be mentioned his splint for fracture of the patella, his appliance for fracture of the clavicle, and his apparatus for extension of the limb in cases of resection of the bones, and also after the removal of the necrosed shaft of a bone.

As a lecturer he was very popular among his students. He was a fluent, brilliant, and witty speaker and conversationalist. He also enjoyed considerable popularity up town as a church lecturer; two of his most popular lectures, I remember, being upon the subjects, "Poetry of Life," and "Peculiarities."

Dr. Boisnot was always among the warmest advocates of higher medical education, and favored a full four years' course. In his introductory to the Philadelphia School of Anatomy and Surgery, in 1875, he said, after speaking of the various subjects which should be successively taken up each year: "We have been led to think that some such course as the above should be adopted by viewing and comparing the course of education adopted generally, and in connection with the professions of law, divinity, etc. Who can for a moment believe but that it would make better physicians, and thus exalt a profession most worthy? There are numbers of men who to-day, as members of the medical profession, regret the imperfect education they were content to enter that profession with; while, on the other hand, no one can be found who regrets the time he spent in general preparatory and literary discipline. . . . The young men who, in *our day*, receive the degree of M.D., are ushered into the labors incident thereto with less preparation than should be given to the *grandest science*, *the noblest art*, *the most dignified labor* that ever engaged the attention of the mind, or the occupation of the hand, of man. To the student should be said—

> "Thy life's too short save slightest parts to scan;
> The noblest work of God is man."

The simple yet strict religious training inculcated into the subject of this biographical sketch, in his early childhood, by his pious parents, laid the foundation for the sincere regard he paid to all subjects appertaining to religion throughout his entire life. His profound knowledge of biblical history often astonished his friends.

On the last day but one previous to his death, he asked me to hand him the old family Bible, and, after adding a few points to the family record, which dated back several generations, he sought out the text (The Acts, 15th chapter, 11th verse) which he desired to be made the basis of the funeral services. Never shall I forget that scene, and the clear, joyful voice as he closed the book with the words, "That text is my hope; it's all I need!"

Personally the doctor was a favorite among all who knew him. Always of a cheerful, buoyant, and hopeful disposition, he ever greeted all with a pleasant joke or witty remark.

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In 1860 he married Mary Elizabeth, only child of Alfred Burr, Esq., a merchant of this city, and by whom he had six children, only three surviving their father's death.

Such, very briefly, was the life of our late fellow-member, Dr. James M. Boisnot, whom I loved as a faithful preceptor and most sincere friend.

He was an affectionate husband and father; a generous, Christian man, who, as a conscientious physician, eminently had the respect and good wishes of his patients and professional brethren.

JAMES AITKEN MEIGS, M.D., 1829-1879.

BY GEORGE HAMILTON, M.D.

We are gathered together at this time in order to perform a duty enjoined upon us by a provision of the by-laws of the Philadelphia County Medical Society, in the event of the death of a member.

On the 9th of November, Dr. JAMES AITKEN MEIGS, one of the oldest and most distinguished members, and ex-President of this Society, was suddenly called to his final rest, and to me has been committed the preparation of the obituary notice usual on these sad occasions. Although well acquainted with the deceased, opportunities of intercourse with him did not often occur, so that the general history of his life, with its various events, incidents, and conditions was but imperfectly known to me, and hence I felt a reluctance to accept the proposition to become the memorialist of so distinguished a member of the profession. Assistance, however, being promised in this connection, the influence of a heart-felt interest in the subject, and, frankly, an indisposition to refuse the honor of such an appointment, quickly decided my acceptance of it. The work of preparing the memoir was entered upon not as a task, but with a feeling of admiration and esteem for him who in so short a life had accomplished so much in science, and had endeared himself to so many in and out of the profession. If, in the course of this memoir, the thought should arise that a too partial coloring has been given to some portions let it be attributed rather to the inspiration of an affectionate regard for the memory of the departed one, than to any desire or disposition to deviate from the path of ingenuousness and truth.

James Aitken Meigs was born in Philadelphia, July 31, 1829, of English and Scotch ancestry on his father's, and of Scotch and German ancestry upon his mother's side.

Instruction during his boyhood was first obtained from private tutors, afterwards in connection with the Mount Vernon Grammar School, and finally in the Boy's Central High School of Philadelphia, from which he received a diploma in 1848. The question of an avocation for the son, and only living child, occupied for some time the thoughts of his father, who finally consented that he should devote himself to the study of medicine; not, however, until he had been assured, after examination, by the late Dr. Charles D. Meigs,

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that he regarded the son as well qualified by nature for that study, and in fact ventured to predict his future success. Accordingly in April, 1848, he began his studies under the direction of Drs. F. Gurney Smith, and J. M. Allen, and in October of the same year was matriculated in Jefferson Medical College, obtained his diploma in 1851, and received at the same time the certificate annually conferred by the lecturers of the Philadelphia Association for Medical Instruction on those students who passed successfully the examinations upon the lectures delivered. The title of his thesis was, "The Hygiene and Therapeutics of Temperament;" and here we think it may safely be said that the choice of such a subject was in itself an evidence of a breadth of view in medicine far beyond the average student, especially at that period. He began practice, and continued it in Philadelphia until his fatal attack. For several years he was assistant to the Professor of Physiology in the Pennsylvania College, and engaged in the preparation of students for graduation. In September, 1854, he was appointed professor of Climatology and Physiology in the Franklin Institute of the State of Pennsylvania, holding this position for eight years, during which he was often required to deliver lectures upon ethnological and other subjects in various institutes of Philadelphia, and adjacent cities and towns. In 1855 he was chosen one of the physicians to the Howard Hospital, serving in that capacity during thirteen years. In 1857 he accepted, by invitation, the Chair of Institutes of Medicine in the Philadelphia Medical College, occupying it until April, 1859, when he was transferred to the Chair of Institutes in the Medical Department of the Pennsylvania Medical College. In this institution he delivered two systematic courses of lectures on physiology, illustrating them with an extensive series of vivisections, attracting much attention at the time, as no sustained systematic effort in teaching physiology by this method had previously been made in any of the four medical schools then existing in Philadelphia. In 1859 he was elected consulting physician and clinical lecturer to the Philadelphia Hospital at Blockley. In 1866 a spring course of lectures was established by the Jefferson Medical College, and at the request of the faculty, he delivered a series of lectures on the physiology and pathology of the blood and circulation. In June, 1868, on the resignation of the late Professor Dunglison, he was elected by the trustees of Jefferson Medical College professor of the Institutes of Medicine and Medical Jurisprudence; his application for the chair having been supported by many physicians of Philadelphia, and recommended in letters addressed to the Board by Prof. Henry, of the Smithsonian Institution; the late Dr. J. C. Nott, of Mobile; Prof. Wilson, of Toronto; Owen, of the British Museum; Turner, of the University of Edinburgh; Broca, of the Academy of Medicine of Paris; Von Düben, of the Carolinska Institute of Stockholm; Preuner-Bey, of Cairo; and other distinguished physicians and scientists of America and Europe. In August of the same year, the Board of Managers of the Pennsylvania Hospital chose him, without the usual canvass, one of the physicians to that institution. This action of so prudent a body as the managers were known to be, must have been regarded by Dr.

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Meigs, and indeed was an exceptional honor. In 1851, the year of his graduation, he became a member of the Philadelphia County Medical Society, of which he was elected corresponding secretary in 1848, vice-president in 1867, and president in 1871. During the years just named the general, and more especially the obstetric practice of Dr. Meigs had become very extensive; yet the duties pertaining to the various offices conferred upon him by this Society were not neglected, and if it occasionally happened that a failure in point of time or attendance occurred, there was no disposition to attribute it to indifference, or want of interest in the Society, for he was known to be feelingly alive to the promotion of its success, and the exaltation of its status. As presiding officer of this Society he was impartial, disposed to conciliation, frank in the expression of opinion, calm in feature and deportment, and, as was his custom in ordinary intercourse, animated, cheerful, and at times even mirthful.

He was also a fellow of the College of Physicians, a member of the American Medical Association, the State Medical Society of Pennsylvania, the American Association for the Advancement of Science, the State Historical Society of Wisconsin, the Medico-Legal Society of New York, the Numismatic and Antiquarian Society of Philadelphia, the New York Lyceum of Natural History, the Linnæan Society of Pennsylvania College at Gettysburg, the Anthropological Society of Paris, the Ethnological Society of London, the Anthropological Society of London, the Societas Medicorum Succanæ at Stockholm, and the International Congress of Prehistoric Archæology. He was also a delegate to the Centennial International Medical Congress of 1876, and in 1877 was elected a member of the Board of Trustees of the Polytechnic College of the State of Pennsylvania.

While a student of medicine, and for some time after graduation, he contributed to the Medical Examiner clinical reports from the Jefferson Medical College and the Pennsylvania Hospital, the discussions of the Philadelphia County Medical Society, and papers on the mortuary statistics of Philadelphia. In 1855 he published in the Journal of the Franklin Institute an article on the physiology of stammering, and its treatment by mechanical means. In 1856 he prepared the first American edition of Carpenter's work upon the microscope, and in 1857 edited an edition of "Kirke's Manual of Physiology." To the proceedings of the Academy of Natural Sciences, to the reports of the Smithsonian Institution, and similar publications, he contributed, at various times, many original articles on craniography; prominent among them were, "Hints to Craniographers upon the Importance and Feasibility of Establishing some Uniform System by which the Collection and Promulgation of Craniological Statistics, and the Exchange of Duplicate Crania, may be Promoted." He also contributed many reviews, on a great variety of physiological, medical, and scientific subjects, to the Medical Examiner, the North American Medico-Chirurgical Review, and the American Journal of the Medical Sciences; and prepared, for Professor Gross's "American Medical Biography," the memoir of Dr. Randolph.

In 1868, as introductory to his course of lectures on physiology

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in Jefferson Medical College, he delivered an inaugural dissertation on the "Correlation of the Physical and Vital Forces," of which two editions of over a thousand copies each were published. Besides attending to his private practice, and fulfilling his duty as lecturer on physiology, diseases of the nervous system, and clinical medicine in Jefferson Medical College, he had in charge, from May to August, the medical wards of the Pennsylvania Hospital, visiting them daily, and gave, twice a week, a series of clinical lectures, in co-operation with other lectures, connected with the Jefferson Medical College.

Thus, medicine, in a restricted sense, was not the only subject that engaged the attention and interested the mind of Dr. Meigs. The study of ethnology, for which he manifested early in life an especial inclination, probably from its relation in some respects to medical science, was zealously pursued, and with a success that not only arrested the attention of those occupied in that difficult branch of knowledge in this country, but created a most favorable impression upon the minds of numerous savans of Europe, devoted to the investigation of this topic. It was, in fact, through the ability and aptitude he displayed, in treating questions pertaining to ethnological science, that first gave him prominence as a student of Nature; and the success of his efforts in this direction, doubtless, aided him in acquiring the exalted position he attained to as a teacher of that most important and difficult branch of medicine-physiology. In this connection it affords me pleasure to say that, through the courtesy of Dr. Ruschenberger—for many years past, as most of you know, President of the Academy of Natural Sciences of Philadelphia—the relationship of Dr. Meigs with this famous institution is thus made known: "Dr. James Aitken Meigs, at the date of his death, had been a member of the Academy of Natural Sciences of Philadelphia more than twenty-seven years. He had not completed the twenty-third year of his age when he was elected, April, 1852. His ability and methodical and industrious ways secured to him the respect and confidence of his associates. In January, 1854, he was elected a member of the Academy's Standing Committee on Ethnology, and in 1857 became its Chairman, and held the position until the committee was finally abolished in 1876."

Like others who had preceded him in the Society, he had the good sense to avail himself of the opportunity to use the facilities which the Academy afforded to secure a general and accurate knowledge of branches of learning collateral to medical science.

His special interest in ethnological and kindred studies led him to prepare a descriptive "Catalogue of Human Crania in the Collection of the Academy of Natural Sciences of Philadelphia," which he presented at a stated meeting of the Society, December 18, 1855. In the execution of this work he measured the capacity of each cranium of the 1007 crania in the collection. It forms an 8vo. of pp. 112, illustrated by 56 wood-cuts, and was published in 1857. The merits of this work were recognized at home and abroad. It laid the foundation of his European reputation, and brought him in

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direct correspondence with many men eminent in this field of research.

He read a paper on the "Relation of Atomic Heat to Crystalline Form," which was published in the Journal of the Academy in 1855.

On the resignation of Dr. William Zantzinger, in August, 1856, he was elected Librarian, and served till May 31, 1859, when increasing professional engagements led him to resign the office.

September, 1859, he presented a "Description of a Deformed Fragmentary Skull found in an ancient Quarry Cave at Jerusalem, with an attempt to determine, by its Configuration alone, the Ethnical Type to which it belongs." It was published in the Proceedings of the Academy, 1859, pp 262–280.

His "Observations upon the Form of the Occiput of the various Races of Men" were published in the Proceedings of the Academy for 1860, pp. 392–415. His paper entitled "Observations upon the Cranial Forms of the American Aborigines, based upon specimens contained in the Collection of the Academy of Natural Sciences of Philadelphia," was published in the Proceedings of the Academy for 1860, pp. 197–235.

In proportion to the increase of his professional occupation his labors in the Academy abated, but he never became indifferent to its prosperity, and whenever opportunity offered he exerted himself to promote it. At the laying of the corner-stone of the new edifice, October 30, 1872, he delivered a learned and eloquent address.

His connection with the Academy exerted a beneficial influence on his career. Indeed, it may be said of him what Prof. Horatio C. Wood said of himself, that whatever he achieved "as a medical investigator, was largely due to the lessons of close observation, patient comparison, and cautious deductions, learned in the close aisles and dusty by-rooms of the old Academy, which was the Alma Mater, the veritable mother of his intellectual life."

Thus has been presented to view a concise yet accurate record of the various subjects that engaged the attention of Dr. Meigs from the time of graduating in medicine until the attack that, so quickly and unexpectedly, terminated his career. When we reflect upon the difficult, abstruse nature of some of these subjects, requiring, for profitable investigation and successful results, prolonged and accurate powers of observation, nice discrimination, and, in addition, reasoning powers of a high order, that hasty or illogical deductions might not lead into error, it is matter of surprise that, with the burden of a large obstetrical and general practice, he could have found time, inclination, or the congenial frame of mind requisite for the investigation of the perplexing questions involved. A mere glance, however, at the topics that chiefly occupied his thoughts, cannot fail to convince that his mental endowments were of no ordinary kind, and found support and endurance in a physique of unusual vigor. This extraordinary capacity for mental labor, and other characteristics of Dr. Meigs, are exemplified in a note, obligingly contributed by Dr. Samuel D. Gross. With the whole tenor of this contribution to the memoir, the information it imparts, and, more than all, with the deep sympathetic feeling it reveals, you will all be much gratified, and join me in an expression of thanks

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that one so distinguished has so graciously and cheerfully rendered homage to the memory of his departed colleague. The note reads as follows:—

"My Dear Dr. Hamilton: You ask me to give you some information respecting my late lamented friend and colleague, J. Aitken Meigs, Professor of the Institutes of Medicine in the Jefferson Medical College. In complying with your request, as I cheerfully do, I shall confine myself to a few salient points in his character. It was my good fortune to make the acquaintance of Dr. Meigs soon after I removed to this city in 1856, and the acquaintance thus formed soon ripened into a warm friendship, which continued to the time of his death, so sad and so unexpected. During his connection with the Pennsylvania College, I occasionally attended his lectures, often visited him at his office, and availed myself of every opportunity to encourage him in his career as a teacher and a student. I soon found that he was a man of great ambition and of high intellectual powers, and that he was destined to attain to high distinction in his profession. He had an eminently philosophical mind, and was particularly devoted to the study of physiology, anthropology, and natural history. He was a hard student, very fond of books, and gradually collected around him a large and valuable library, made up of works in different languages. He had a large and onerous practice, and I doubt whether he really ever spent an idle hour. He had no taste for society, but he always enjoyed a good play or a fine opera, and early in life was a frequenter of the theatre. Indeed, he was a member, in his younger days, of a private Thespian company, and possessed more than ordinary talent as an actor. As a reader he excelled, and this accomplishment, no doubt, materially contributed to the interest of his lectures. As a teacher, Dr. Meigs will always be remembered with pleasure by those who enjoyed the benefit of his instruction. He was always full of his subject, and it may safely be asserted that he never went before his class without thorough preparation. I am told that he did not use any notes. His memory was wonderfully capacious and retentive. He was never at a loss for a name or a word. His manner was always earnest, and, at times, even enthusiastic. He was peculiarly felicitous in the presentation and elucidation of his matter. The student, if at all attentive, could not fail to understand him, or to be benefited by his instruction. His popularity with his pupils was very great; they not only admired, but loved him, and their orderly conduct in the lecture-room was proverbial. As a colleague, Dr. Meigs was everything that could be desired—courteous, considerate, loyal, punctual. In all my intercourse with him, whether private or official, I never heard him utter an unkind word, or make an ill-natured remark. He was a man of great power of endurance; he loved work for its own sake, and for the sake of imparting the results of his labors to others. Had his life been spared a few years longer, he would have produced a great and exhaustive treatise on physiology; a branch of science which had so long occupied his thoughts and attention, and which his mind, so highly cultured, and so rich in knowledge, was so well adapted to illustrate and adorn with original observations.

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"In the death of Dr. Meigs I have lost an old and devoted friend, my Alma Mater a most able teacher, and our profession one of its greatest ornaments."

The note just read, containing so many points of special interest, and the contribution of Dr. Ruschenberger, exhibiting in chronological order the scientific subjects that chiefly occupied the thoughts of Dr. Meigs, in connection with the Academy of Natural Sciences, with the previous detail of matters pertaining more strictly to medicine proper, show but too clearly the loss sustained by his sudden death. Nothing, perhaps, more conclusively proves the great intellectual powers that Dr. Gross so early discovered in Dr. Meigs, than his decided proclivity to grapple with, persistently study, and, if possible, master obscure problems in medicine or natural science. Men of ordinary mental capacity either avoid such attempts, or struggle in vain for a longer or shorter period to accomplish their object, until at length they are forced from sheer inaptitude or inability, to abandon the difficult field of investigation they have ambitiously entered upon.

In the preparation of an obituary notice to be presented to this Society, it has only occasionally happened that the writer of the memoir has had to introduce any matter other than what pertains to medicine proper, and to the deceased member. Nor will the usual course be lost from sight in the present instance; for, as stated in the note of Dr. Ruschenberger, the subject of Ethnology or kindred science, so assiduously investigated by Dr. Meigs, was that which first brought his name prominently to the notice of men eminent in this branch of knowledge, in this country and in Europe; so that it cannot be doubted that some one familiar with this subject will be appointed by the Academy of Natural Sciences to prepare a memoir in this connection.

That the attention, so early given by Dr. Meigs, to the subject of Anthropology, was intended by him to be auxiliary to a more general and successful study of man, in his material organization and relation to surrounding objects and agencies, cannot be doubted. Nor can we hesitate to concur in opinion with Dr. Ruschenberger as to the advantages of such study, preliminary to that of physiology proper; the most extended, difficult, and important of all studies in regard to a rational system of medical practice. This, then, was the subject to which for several years, Dr. Meigs gave earnest attention; leaving no experiment untried, and neglecting no appliance or expedients that could in any degree tend to make more clear to the student the difficulties inherent to this vitally important branch of medicine. The fidelity of his labors in this direction has been verified in the note of his distinguished colleague, and concurred in by verbal testimony from other sources.

Physiological research, for many years past, is widely different from that of half a century ago. The subject has always been a difficult one, and despite the progress made in revealing the mysteries of organization and vital movement, the whole subject now presents a wider field for research than ever. Facts, above everything else, are what the modern physiologist desires and zealously searches for; yet notwithstanding the persistent efforts of the

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vivisectionist, the microscopist, and the chemist, he is often in doubt as to what is, or what is not to be accepted as a well-established fact. Theory then, as a matter of necessity, is resorted to with a view to establish the validity of one in opposition to another alleged fact; so that from the extent of the field now being explored, and the intricacy and complexity of the points involved in this exploration, theory, and that too of the most subtile character, is probably more prevalent now than at any former period. Fortunately for the student in physiology who listened to the lectures of Dr. Meigs, he found in his preceptor one who was constitutionally somewhat incredulous, and in this connection a remark of the late Prof. Samuel Jackson may here be quoted, namely: "That no credulous man is adapted either to the profitable study or practice of medicine." That Dr. Meigs was most deeply impressed with a sense of the extreme importance of a correct or, this in many cases being impossible, at least an approximately correct physiology is well known. For how otherwise is the abnormal condition to be determined when, from ignorance of the normal, we are incapable of instituting any just comparison between these two opposite conditions? Dr. Meigs was a sagacious observer and logical thinker, and whilst it may in truth be said that "to theorize is to think," he well knew that to theorize or think rationally and profitably requires as a basis facts, not false or conjectural, but well-established facts, uncontroverted, because incontrovertible. Influenced by considerations of this character, and recognizing, in the study of a subject so intricate as that of the problem of life, the value of the admonition, "*festina lente*," he was unusually reserved in accepting as positive fact that which had in its favor only a certain number of circumstances rendering it probable; knowing full well that a score of probabilities are rendered null and void when brought face to face with a single well-established fact. In view then of the proclivity (natural enough) of the average physiologist to enter the labyrinth of conjecture and dubious opinion, from which he is sooner or later compelled to retreat with what grace he may, we cannot but approve the wiser plan, pursued by Dr. Meigs, of advancing in the path of discovery only so far as to foresee that the points attained to were tenable, and would not have to be abandoned. In accordance with these views it was his constant effort to illustrate by every possible means each important proposition advanced, knowing that instruction conveyed to the mind through the medium of the senses was not only more fully appreciated, but was more likely to be remembered, especially in early life. When no special appliance for illustration was at hand, a fertility of invention would often enable him to extemporize a substitute, at times so exceptionally adapted to his purpose as to surprise and delight his pupils. But there was still another advantage in his method of instruction. Physiology, normal or abnormal, occupies at the present time, as before intimated, an immense field, and whatever may have been accomplished in its investigation, that which remains to be done is still more extensive, more difficult, and more important. No subject connected with medicine has given occasion to so much diversity and antagonism of opinion, nor does the future seem to promise an early solution of

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the more abstruse questions involved. Under these circumstances, and in view of the rather brief period allotted to medical study, and the numerous branches to which the attention of the pupil must be directed previous to graduation, it is not the part of prudence that his memory should be overtaxed, or his mind perplexed by introducing for his consideration the various and too often divergent opinions or conclusions of those engaged in this special department of medicine.

That the mental constitution of Dr. Meigs eminently fitted him for the investigation of the more difficult problems in physiology must be conceded, and it is certain a predilection in this direction existed; but he well knew that some of the fundamental and well-established points in physiology, those most essential to a young practitioner, were so necessary that without a knowledge of them he would, as it were, be in the condition of a ship at sea without a rudder. The lectures on physiology by Dr. Meigs were, taken as a whole, exceedingly popular with students, or the practitioner who from time to time might visit the lecture-room to spend a pleasant and instructive hour. An attractive feature of these lectures was found in the correctness, precision, and, at times, eloquent language, in which they were delivered; and again, as the writer has been informed, in a sedulous avoidance of any irreverent expression or the slightest indelicate allusion. His manner, too, so feelingly alluded to by Dr. Gross, was frank, cordial, unassuming, and yet so earnest in endeavoring to impart practical instruction to his pupils, that no surprise could occur on beholding the regard, esteem, and affection they manifested for him. Although the lectures of Dr. Meigs were so highly prized by the students, the doctor was at times by no means so well satisfied with his efforts to do justice to the subject in hand. On the contrary, he was occasionally disposed to give expression to a regret that so much obscurity still beset the path of those engaged in investigating the mystery of organism and organic movement, and that more had not been accomplished by the physiologist to enable the practitioner to determine what was, and what was not, normal, and thereby to arrive at a reliable diagnosis —the first and most important step in the treatment of disease.

Nothing, perhaps, has occasioned more surprise to those intimately acquainted with Dr. Meigs than the extraordinary powers of endurance—mental and physical—manifested by him throughout his life, and referred to in the note of Dr. Gross. From his boyhood he was passionately devoted to study. A practice, general and obstetrical, requiring at times from fifty to sixty visits a day, with its attendant fatigue, oft-recurring importunities of patients, and harassing anxiety, would, it might be thought, have extinguished or at least in some degree repressed this ardent devotion to the research of abstruse subjects. But the midnight hours remained, and these, so often devoted even by the professional man to society, were by him reserved for the investigation of questions having close relationship with the physical, intellectual, and moral welfare of the human race. After all, the difficulties encountered by him in this connection were perhaps too often magnified; for so exceptionally was he gifted with mental activity and power, and so assid-

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uously had these natural gifts been cultivated throughout his life, that what to him would be only a temporary obstacle, might prove to another an insurmountable barrier.

Some idea of Dr. Meigs as a practitioner of medicine may be formed from what has already been stated. He was not one of that numerous class whose credulity and self-sufficiency induce them to attribute every recovery from disease to the precise measures they have resorted to; or that any skill and judgment, superior to their own, could have averted a fatal issue. Eminent as he was in observation, he was still more gifted in philosophy and logic; consequently, "*Nullius addictus jurare in verba magistri;*" he yet gave attentive consideration to the views of any who might differ with him in opinion. He labored assiduously to discover the truth, and to establish facts of importance in medical practice, but was not so enthusiastic and eager to reach, prematurely, definite conclusions as those who are more excitable and impatient in temperament. The extent of his practice afforded every opportunity for the observation of abnormal physiology, but he knew only too well the difficulty in many cases of defining with certainty in what this consisted, in the absence of a more perfect acquaintance with the normal condition. His practice, then, as the writer is authoritatively informed, was, as a rule, conservative; agreeing in this respect with that of a vast majority of the most able physiologists and pathologists of our own country or Europe. Like these, he had faith in a "*vis medicatrix naturæ*," the conservative and restorative power of the organism, and watched closely to discover the direction to which nature inclined in her efforts to restore normal movement, that he might fall in with and aid her rather than interpose obstacles by prematurely resorting to measures of doubtful utility.

From the contribution of Professor Gross to this memoir we learn that a long-cherished object of Dr. Meigs was the preparation of an extended, exhaustive work upon physiology, for which, as the professor informs us, his qualifications were unsurpassed. It could, in fact, scarcely be otherwise. From his earliest manhood he manifested a disposition to obey the monition, "Man, learn to know thyself." But that he might more profitably study man in his physical, intellectual, and moral nature, he began far back in the ages, by acquiring a knowledge of what ethnological and anthropological research had accomplished in this direction; thence coming up to the study of man in his present status and correlations. Why Dr. Meigs should have postponed during several years the preparation of this work is involved in doubt. It may have been that, in view of the magnitude and character of the enterprise contemplated, for, as his father recently informed me, he intended it to be the crowning effort of his life, he shrank from entering upon it until he had, by further research and meditation, still better equipped himself for the laborious and arduous task in view; or he may have intended, at a definite period, to abandon or greatly diminish his practice, so that more time and greater concentration of thought might be secured to accomplish the object designed. But another topic, more unique in feature than this, had for a long time attracted the attention of Dr. Meigs. The subject was woman, her intellec-

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tual and moral status, compared with that of man. What may have been the precise nature of his views regarding this matter, or within what limits these views were confined, does not clearly appear; but the starting-point with him was, that the superiority of man in physical force had, from the first, and continuously to the present moment, given him the vantage ground over woman. The actual condition, then, of woman has been, and continues to be, as he thought, one of comparative servitude; that such a condition interposes a serious obstacle to the perfect development of her intellectual and moral nature; and that in nearly every instance, as is shown by history, where she has escaped the trammels alluded to and enjoyed equal intellectual culture, she has proven herself the equal, if not the superior, of man. The actual basis of these opinions seems to have been found, as Dr. Meigs believed, in the fact or supposition, that the whole nervous system of woman—brain, spinal marrow, and nerves—is, in structure and composition, finer than that of man; enjoys a more acute sensibility and susceptibility to impressions from without or within; and that, with these natural advantages in her favor, it is scarcely possible to recognize an inferiority either in sentiment or intellectuality, except from the operation of the depressing influences to which she has been incessantly exposed. That the views thus outlined could have been successfully established by Dr. Meigs, in the face of the general opinion to the contrary, is not probable; whilst it is evident that this idea of inferiority is weakening from year to year, and that, too, without having encountered, so far as we know, an opposition so formidable and special as that contemplated in the proposed work, the very conception of which may serve, at least, further to illustrate the independence, fearlessness, and energy of him whose sudden departure in the strength of his intellect we have to deplore.

It will thus again be seen that the time and thought of Dr. Meigs were persistently devoted to the consideration of subjects pertaining to the physical, intellectual, and moral condition of man; subjects, indeed, of such exalted importance as to throw into the shade all others to which the mind of man has ever been directed. Talents, however, or rather genius of another character he also possessed, which, if time and study could have been given to them, would doubtless have gained him a distinguished reputation As a writer, no matter how abstruse the subject, his language is admitted to be correct, definite, and to the purpose; avoiding the use of words or phrases not accepted by recognized authorities as legitimate or applicable. The principal address at the laying of the corner stone of the Academy of Natural Sciences was given by Dr. Meigs. No one can read it without admiring the fitness of its conception, force, and beauty of language, and the graphic power therein displayed. His talent in versification was of an extraordinary character. In his boyhood, as his father informed me, he would indulge his humor in this direction by an occasional contribution to the press. Dr. Edward W. Vogdes, of the Philadelphia High School, states in a note received from him, among other interesting matters, that at the time of his graduation in 1848, young Meigs delivered an original poem, entitled "The Destination of Philosophy," of which the

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Public Ledger declared, "that he acquitted himself in a highly creditable manner, and deservedly received the warmest encomiums." Here again, in the very title of this poem, we have evidence of the philosophic cast of thought that nature had bestowed upon him. The "Valedictory Address to the Graduating Class of Jefferson Medical College" in March, 1879, is that in which his poetic talent is most conspicuous; and surely no one, without a strong consciousness of power, could have undertaken a work of this difficult character and carried it on to a successful completion. From the first line to the last there is not the slightest sign of hesitation, but, "*currente calamo*," he pursues the even tenor of his way, apparently neither anxious about meeting, nor fearing to encounter opposing obstacles. The address is in fact illustrative of his own career, of his own inner-life, of his solicitude for the student's present progress in learning, and future welfare, as may be exemplified in the following admonitory quotation:—

"Shun braggart glory, crave no sounding name,
Good deeds in heaven's scales weigh more than fame.
All pomp and vain display avoid, although
The foolish world is led by empty show.
Be always what you seem, seem what you be;
With learning couple large integrity.
Through merit seek to rise, and not by dint
Of blazoning your names in public print,
Or pseudo-scientific pamphlets, which
Not science, but their writers seek to enrich
Through wondrous tales of cures adroitly told,
To snare the credulous and filch their gold.
Praise not yourselves, nor others' praises buy,
As men, not showmen, with each other vie.
Upon the public never seek to palm,
With face unblushing and without a qualm,
The coin of base presumptuous pretence
For sterling gold of honest excellence."

The poem throughout has strength and beauty, abounds in classical allusions and agreeable incidents, not the least of which occurs in the apostrophe of one who, "*primus inter pares*," well deserves this gracious and grateful tribute. In this connection it may here be stated, that in the magnificent and costly library of Dr. Meigs are to be found a choice, and extensive collection of the most distinguished poets of ancient and modern times.

The taste and fondness of Dr. Meigs for music corresponded with those he possessed in regard to poetry. Ordinary themes, or methods of vocalization and instrumentation, so far from being a source of pleasure, were irksome to him; whilst the proper rendition of the compositions of a Mozart, a Handel, a Beethoven, or a Rossini, filled him with delight.

The persistent ardor of Dr. Meigs in the acquisition of knowledge, alluded to by Dr. Gross, was innate. When a child, as we are informed, he cared very little for toys, but the moment a new book was presented to him he would exclaim, "Oh! a book, a book;" his features at the same time expressing his gratification. This disposition to read and study greatly pleased his mother, and was encouraged by her, so that, when several years older, it had so grown

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upon him that from time to time, after having been directed to lay aside his book and retire for the night, he would be found intently absorbed in reading, on some occasions seated in an unpleasantly cold room.

That one so gifted, so assiduously devoted to the culture of his natural powers, should be suddenly and unexpectedly called away, in full possession of his mental faculties, cannot but cause a feeling of profound regret, especially in view of the fact that, for years past, he had labored in accumulating a vast amount of matter preparatory to the preparation of the contemplated exhaustive work on physiology. Had Dr. Meigs lived to accomplish this undertaking he would doubtless thereby have graven his name deeply upon the granite shaft. But man proposeth, and God disposeth of the event. Yet let us be satisfied that the slight tracings of his name may not soon be effaced; for in the short space of twenty-five years he accomplished that in medicine, and natural science, which cannot fail to challenge the admiration of every intelligent and ingenuous mind.

Let us now turn to a consideration of the personal characteristics of our departed member, for in these there may perhaps be found greater cause for admiration, than in the contemplation of his intellectual gifts.

The countenance or general aspect of Dr. Meigs gave no special indication of his intellectuality and sentimentality; neither was there anything in his usual deportment or conversation to induce one to regard him in this light. In manner he was cordial, frank, and so affable that, after a few interviews with him, he was apt to be regarded as an old rather than a recent acquaintance. He was devoid of assumption or presumption, and gravity in look or demeanor (said by Voltaire, with characteristic finesse, to be very often synonymous with hypocrisy) he never manifested. In this respect there was a striking resemblance between the late amiable and distinguished physician and naturalist, Dr. Samuel G. Morton and Dr. Meigs; both of them entirely devoid of pretension in conversation or deportment. If, indeed, Dr. Meigs knew what affectation was, he certainly possessed a marvellous will and power to repress the exhibition of a quality so unmanly and offensive. It has been said that society had no charms for Dr. Meigs. But it is to be remembered that, as Dr. Gross has stated, he was a man of exalted ambition, passionately devoted to the study of abstruse problems in science; and further, that, owing to the extent of his practice, no other time than night-hours could be appropriated to study. Now, these are the hours usually devoted to social reunions and amusements, and, as Longfellow remarks, men of this class, their thoughts occupied almost incessantly with abstruse questions, do not, as a rule, find themselves fully at home amid scenes and objects so foreign to the subjects to which they cling with enthusiasm. The mode of life of Dr. Meigs was, from his childhood to the day of his death, simple, unostentatious, and inexpensive; so also was that of his parents. He sprang, in truth, from the ranks of the people, and belonged to that class from which have come forth a Franklin, a Rittenhouse, a Fitch, a Fulton, an Oliver Evans, a Benjamin West, a Rush, a Morse, a Webster, and many others in our own country;

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and an infinite number from the same class in monarchical and aristocratic Europe.

These, indeed, are the men to whom we are mainly indebted for progress in all that pertains to the safety, the comfort, the conveniences, and, in fact, everything else characteristic of the civilization of the present era. It was doubtless in view of the labors of this class of men that, in the learned and eloquent address given at the laying of the corner-stone of the Academy of Natural Sciences, he broke forth in the following eloquent and graphic tribute: "Science, thus created, has rescued savage man from the bondage of ignorance and gross superstition, and, by giving him command over the primal forces of nature, has elevated him in the economic, social, and moral scale. It has benefited him by improving agriculture, developing and utilizing the staples of commerce, and increasing and cheapening the means of transportation. It has bridged the ocean, and made its waves a means of conveyance from one hemisphere to the other, thus bringing distant nations face to face, as it were, and enabling them to exchange their handicraft quickly and profitably. It has thrown huge bridges—wonders of engineering skill—over impassable rivers, and covered the earth with an endless network of railways. The classic fable of Mercury, cast from Olympus, becoming the messenger of the gods, it has practically realized by drawing from heaven the electric fluid and compelling it to act as the letter-carrier of man along thousands of miles of telegraphic wire. Nay, *mirabile dictu*, it has bound together the two hemispheres with mighty submarine cables, along which our scientific Hermes speeds with his letter-bags at the rate of 19,000 miles in a second of time. It has introduced as motive power thousands of steam-engines into mills, mines, and factories, with the most extraordinary industrial and financial results. By inventing a multiplicity of apparatus for accomplishing in a single and effective manner a great—I had almost said an endless—variety of purposes, it has increased the facilities of production, simplified and cheapened many manufactures, remodelled the arts, and made labor so easy and rapid that it is now possible to perform an amount of work which no combined manual effort could hope to accomplish. Constantly discovering new raw materials, it is constantly adapting them to the material wants of life. It has taught us to bleach and to dye, to spin and to weave, to decompose and to re-combine, and in various ways to modify and call into existence the hidden useful properties of the numberless substances that nature gives to man for his convenience and comfort. It teaches us how to irrigate and manure barren soils into fruitful fields; how to transform the wild currant into the sweet grape; how to convert its juice into wine and this into ether; how to transform a caterpillar into a silkworm, and to weave into velvet the silk which it spins. Diving into the bowels of the earth, it brings forth coal and iron. From the former it distils, on the one hand, a brilliant light, and, on the other, a magnificent series of dyes, rivalling in gorgeousness the colors of Tyre. The latter it converts into steel, and forges this into bars, and even, as if to show its amazing dexterity, hammers it into laminæ rivalling the leaves of a book in thinness and flexibility. It bleaches

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rags to whiteness, and gives to the calico-printer indigo and ultramarine dyes. From refuse soapsuds it reclaims important fatty matters; from the leaflet of the pine tree it obtains cloth capable of being woven into various articles of dress. It has transformed pulverized bones and the sewage of cities into manure, the refuse of the gas-works into ammonia, ether, and flavoring extracts, and old rags into clothing, paper, and many ornamental articles." Is there not then cause for rejoicing in the heart of every true republican that, without the adventitious aids of wealth, station, and influence, so many gifted men, impelled by a generous ambition and strong manhood, have come forth from the ranks and have hewn their way to an eminence whence they may proudly but calmly look down upon many disappointed scions of a wealthy and aristocratic ancestry?

But the time allotted to papers of this sort has nearly expired, and we revert once more to the personal characteristics of Dr. Meigs. In his intercourse with his patients, rich or poor, with or without intellectual culture, he observed the golden rule—to be gentle, kind, and considerate; to bear and forbear with the infirmities that attend upon impaired health or acute disease. That he succeeded in this duty to an unusual degree there is abundant evidence; and although his temperament was mild and disposition forgiving, it would be presuming too much to suppose that he was not often severely tried by the fault-finding, the discontent and wilfulness so common in the chamber of sickness. Resolute and courageous by nature, he had, as we often see, conjoined with these qualities a sympathetic heart, to such a degree, indeed, as the bereft father informed me, that on various occasions he has hurried into his residence scarcely able to control his tears whilst announcing to his father and mother the death of a cherished wife, or the loss of a beloved husband, or an idolized child.

The devotion and affection of Dr. Meigs for his parents, as an eminent jurist of this city has informed me, was of the most marked character he had ever observed; and this is confirmed in the note of Prof. Vogdes as follows, "He loved as well as honored his parents, and was only too glad to minister to their wants, and contribute to their happiness." In regard to the morality and religion of Dr. Meigs, Prof. Vogdes again says, "An intimacy of thirty-five years enables me to assert the unspotted character of his morality. His mind was unmoved by forms of religious faith or creed, but he implicitly confided in the Divine Being, and carried that faith into his daily walk and conversation; and take him for all in all, I shall not look upon his like again."

The announcement of the sudden death of Dr. Meigs was a painful surprise to his professional acquaintances, and doubtless more so to the numerous families he had long cared for in case of sickness. But when in less than twenty-four hours after his decease there appeared in some of the papers a detailed statement of the numerous topics to which he had given attention, and made the subject of earnest investigation, with a record of the various scientific and philosophical institutions with which he was connected by membership or correspondence, there seemed to be awakened a

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widespread feeling of sympathy regarding his sudden and unexpected death.

The disease that terminated the life of Dr. Meigs, in less than a week, was attended with much suffering until the last day of his existence, when, according to his father's statement, he suddenly became much easier, said he felt like another man, asked for food, took it with relish, and after an interval again asked for more, which he ate with apparent appetite; the total amount of food thus consumed, exceeding all he had taken during the previous days of his sickness. He then arose from his bed, washed himself, standing at the basin; then returning to the bed he sat upon its edge, conversing pleasantly with his father about their anticipated trip to Europe. His father, fearing he would thus be exhausted, urged him to lie down; he complied, and in a very short time after, his breathing became greatly embarrassed, his countenance assumed a deathly aspect, and just before his attendant, Dr. Brinton, hastily summoned, entered his chamber, he expired. Sad! Oh! how sad, may we not all exclaim in the sympathizing words of that colleague and counsellor whom he had not long before so worthily and gracefully apostrophized.

Thus hath passed away to his eternal rest one whose mental endowments were only surpassed by his moral excellences; for here again it must be stated that yet another witness on this point is at hand in the verbal testimony of one alike eminent in science and in moral sentiment, to this effect, "that, if, amid the general frailty of human nature, there stood forth prominent a few who had impressed his mind with the idea that they might be called spotless and blameless, among these he would have to place the name of James Aitken Meigs." How desirable, valuable, and consolatory are voluntary testimonies of this kind, coming as these do, from those who have longest and best known the walk, the life, and the conversation of him of whom they testify!

On the day of interment a vast throng gathered to look upon the remains; graduates and pupils from the University of Pennsylvania, the mother of colleges; professors from the Jefferson College, her gigantic daughter; with hundreds of her students, gazing from the opposite side, with earnest and dejected look, upon the habitation where lay the lifeless form of their beloved instructor; of him whose busy brain and eloquent tongue, in life, were now silent in death.

It was indeed a mournful scene, and in a short, solemn hour thereafter, the funeral cortege was wending its way back from the beautiful Woodlands, where, in "the narrow house appointed for all living," were deposited the mortal remains of Doctor James Aitken Meigs.

"Now is done thy long day's work;
Fold thy palms across thy breast,
Fold thine arms, turn to thy rest.
Shadows of the silver birk
Sweep the green that folds thy grave;
Light and shadow ever wander
O'er the green that folds thy grave."

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REPORT OF THE SCHUYLKILL COUNTY MEDICAL SOCIETY.

WITHIN Schuylkill County there are about ninety practising physicians, forty-four of whom are members of the Schuylkill County Medical Society in good standing at this time. The meetings of the Society during the past year have been generally well attended and of a pleasant and instructive character. At almost every meeting young physicians, full of hope and promise of the future, have connected themselves with us. Our Society is certainly in a flourishing condition, notwithstanding the fact that many physicians of considerable experience throughout the county still hold themselves aloof from us, and some few who were formerly active members now seldom appear. This perhaps to the minds of those who hold views in unison with the doctrines of "evolution" will appear as a verification of that law "the survival of the fittest," which is said to govern all things material and social.

The various suspensions in the operations of the "Phila. and Reading Coal & Iron Co." and of the "Phila. and Reading Railroad Co.," within the past year, have produced a corresponding reduction in casualties as compared with former years among the employés of said companies residing in Port Carbon, Palo Alto, and the hamlets of the Schuylkill Valley, within a distance of six or eight miles, within which territory the practice of the writer lies.

Palo Alto is a town of about eighteen hundred inhabitants, situated on the south bank of the Schuylkill River opposite Port Carbon, and extending along the base of Sharp Mountains a distance of about a mile. In the latter part of September, diphtheria of a malignant character broke out in the lower part of the town and swept through the entire village; not a square, and but few houses in which there were children, escaped its ravages. The epidemic continued with varying numbers of victims and degrees of intensity until the latter part of January, when it entirely ceased. The attacks were characterized by prostration, in many cases from the beginning. The skin was hot and of a dirty yellowish tint; there was a diphtheritic deposit on the fauces, covering the tonsils, and gradually extending to the nasal cavities, ears, and eyes. At the same time an ichorous discharge flowed from the anterior nares, which excoriated the skin

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over which it passed. There was a disagreeable and fetid odor peculiar to the disease about the patient, no matter what amount of cleanliness and care was observed by nurses. Within a few days there commenced bleeding from the nose, then from the ears, followed by vomiting of dark grumous matter, a large proportion of which was disorganized blood, after which a few hours closed the scene in death.

In several cases not the slightest benefit appeared to be derived from treatment, the disease appearing to progress uninterruptedly from its inception to the close without a lull in the intensity of the symptoms. Those cases of a mild type, and many of a severe character, improved and finally recovered under supporting treatment, quinine and iron with chlorate of potassium together with powders of the sulphite or hyposulphite of soda internally; local treatment consisted of astringent and detergent applications to the fauces with camel's-hair brush or soft swab, care being taken not to break or forcibly detach the membrane. This was alternated with a carbolized spray, which was also applied to the entire nasal cavity from the anterior nares to the fauces with the "Phœnix Throat Atomizer," an instrument that is admirably adapted to the purpose. Crushed ice in towels around the throat, with fragments allowed to dissolve in the mouth had a very beneficial effect in subduing inflammation and pain during the first few days of the attack. Plenty of milk-punch, egg-nog, brandy and water, and beef-tea were given whenever the patient could be induced to take them. Upon convalescence there frequently appeared as a sequela, paralysis of the muscles of the throat producing an alteration of voice of a snuffling character with a difficulty of swallowing, especially fluids, which sometimes passed into the nares with choking and threatening suffocation. Sometimes the muscles governing locomotion became involved. These phenomena, however, disappeared in every case through the persistent administration of tonics as iron, gentian, strychnia, and more especially electricity. The writer has every reason to believe from his experience and observation in the treatment of diphtheria of an asthenic type, that it is decidedly inexpedient to administer chlorate of potassium in full doses for a longer period than three or four days, for by so doing he believes that one of the objects of treatment is at least partially defeated—that of sustaining the crassamentum of the blood.

During the past year in this locality there have been rather more than the usual number of obstetrical cases, but nothing of a rare or extraordinary character has occurred.

Last January we experienced an epidemic of whooping-cough,

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which in no way differed from the usual type. All cases that fell into the hands of the writer for treatment had administered to them internally sulp. quinia, in from one-fifth to one-grain doses every four hours in combination with the syrup of lactucarium, according to the age of the patient. They were also well rubbed along the whole track of the spine, night and morning, with a liniment composed of equal parts of oil of amber, tincture of opium, aqua ammonia, and olive oil, with the most satisfactory results. Several little patients who, when first seen, were suffering from very frequent and most violent paroxysms of coughing, were almost entirely relieved within four or five days, and but few continued under treatment longer than two weeks.

Within the past year several exceedingly able and interesting papers upon subjects of the highest professional importance have been read before the Society, and thoroughly discussed to the mutual benefit of all. There can be no doubt that the medical organization of this county has been productive of much good, and has had a tendency to elevate the profession in the eyes of the general public, through the moral excellence, integrity, and professional skill of many of its oft-tried and well-known older members. But it is within its own pale, and upon its younger members, that the deepest, most lasting, and beneficial impressions are made; discouraging, as it does, animosity and personal feuds which so naturally creep in among unassociated and rival physicians. On the other hand, promoting that courtesy and good feeling among members, so essential to the attainment of the prime object of our association, *i. e.*, the successful dissemination of medical truths, and hard-earned practical facts, with which the prudent practitioner arms himself anew at each recurring bi-monthly meeting, and from which he goes forth "like a giant refreshed with new wine" to take his stand between the family circle and the countless demons of disease by which it is surrounded; and there fight, over and over again, those silent battles that have absorbed the time and talents of the true physician for ages.

THOMAS J. BIRCH,
Chairman.

Dr. D. W. BLAND, of Pottsville, reports the following:—

Carbolic Acid.—The antiseptic treatment of wounds is one of the successful improvements in modern surgery. The general use of carbolic acid and its compounds is a powerful argument in its favor. Surgeons differ on many points in the treatment of injuries —equally so do they vary in their opinions about the liberal use of

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carbolic acid. There can be no question about the increased success in the treatment of wounds and general injuries, since the introduction of the carbolates into our pharmacy. At the present time no surgeon can ignore the value of carbolic acid as a local application. Cleanliness of dressings, on the part of the surgeon, has always been a recognized principle of the ability of the surgeon to treat wounds and injuries successfully. Repeated ablutions of the wound cannot accomplish what the addition of a few grains of carbolic acid will. Its antiseptic properties are almost incalculable. The internal administration as an antiferment, or as an antiseptic in gangrenous lungs, proves a valuable remedy. The strength of the solution must be gauged by the nature of the injury. In some cases a saturated solution or the pure crystals has been employed and with success.

I employed the carbolic acid dressings in a case of amputation of the leg at the upper third. The stump was washed with a solution of carbolic acid previous to the closing of the flaps. A piece of muslin spread with carbolized lard was applied after the Maltese cross pattern. This was followed by a bandage. The coverings were kept wet for the first four days, after which time the dressings were removed. The flaps had united more than one-half their length; very little discharge was generated and no unpleasant odor. The patient was kept upon full doses of quinine and iron, beef essence, and egg-nog. The stump was dressed daily from this date, the object being to keep the parts perfectly clean. The ordinary solution of 1 part of carbolic acid to 50 of water was used as a wash. The patient recovered without any unfavorable symptoms. praying the fauces in attacks of diphtheria say four or six times, with a solution of carbolic acid in glycerine and honey formed a very satisfactory preparation.

It was my privilege to assist my friend, Dr. J. T. Carpenter, in making a post-mortem examination in a case of diphtheritic croup, where the operation of tracheotomy had failed to afford any relief. The operation was a dernier resort, the case quite as favorable for the operation as such cases generally are. All remedial means had been exhausted. Whether the operation was delayed beyond the proper time or not, the pathological evidences proved, that had the introduction of a tube into the trachea of this patient resulted in recovery, the case would under favorable circumstances have terminated in the same manner, without the operation. The trachea of this little patient was lined with a complete cast of diphtheritic membrane, having a calibre larger than the opening of the tracheotomy tube; the larynx permitted sufficient air to support respira-

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tion. If this membrane was composed of contractile tissue, then the operation was necessarily fatal. The wounding of the trachea would produce apnœa. This cast of membrane was loose in the trachea, like the insertion of a smaller tube within a larger one. This same deposit very likely filled the capillary air tubes, causing death by pulmonary apoplexy, the general condition of blood-poisoning being an important factor.

I had two cases of confirmed diphtheritic croup that made good recoveries under the treatment by inhalation of the fumes of slaked lime. Calomel in doses of .32 gram, with potass. nitras in same quantity, every hour. One part of lactic acid in ten of water as a common drink. In both cases the bowels were freely moved; no ptyalism followed the use of the mercurial. In one case the stridulous respiration continued four days. The case followed a nasal attack of diphtheria, the other had large throat patches. The older patient (6 years) during the resolution of the membrane was seized with a violent epileptiform convulsion lasting one hour and a half. Full doses of bromide of soda controlled their return.

Foreign Body under the Tongue.—Mrs. C. consulted me about the presence of a pin that had effected a lodgment under the tongue, some thirteen years ago. She was the subject of great annoyance from its presence. Several times during the year she would be seized with violent pain under the tongue, with enlargement of the glands in the parotid region, and a condition of partial trismus. I pried the mouth open and found a white speck on the sublingual gland. I made a free incision in the gland, introduced a delicate pair of forceps, and succeeded in securing a large pin thoroughly covered with alkaline deposits. The removal was followed by a profuse discharge of pus; the patient recovered entirely.

The use of salicylic acid in acute rheumatism failed in two cases to make any impression upon the disease. The steaming process, followed by cold sponging, with the internal use of full doses of Dover's powder and bicarb. of soda, was successful in one case. The second case, the patient aged 35 years, died from the effects of rapid tissue change, resulting from the excessive temperature. The thermometer indicated 107½° twenty-four hours preceding her death. Full doses of quinia and cold sponging were resorted to. The increase in temperature continued, delirium with complete coma ensued, lasting six hours, when death closed the scene.

Case of Severe Pelvic Injury.—Andy Moran, aged 57 years, was accidentally knocked down and rolled over by a passing locomotive. The position of the limbs indicated dislocation of both hips—possibly fracture. The left leg was shortened—foot inverted—knee rest-

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ing about lower third of opposite thigh—rigidity of limb. The distance between the knees was so great that a serious lesion of the right leg was suspected. Under the influence of chloroform the reduction of the left thigh to its normal position was easily effected by the system of manipulation—the head of the femur entering the acetabulum with a decided crack. Upon comparison of the limbs, the right one was much the longer—limb rigid—foot everted—motion limited and painful—depression over the great trochanter. Chloroform was again administered and the examination carefully continued. The head of the femur was discovered down under the pubis, pressing close to the raphe; in fact, it was in the perineal region. Upon slight movement of the limb the head of the bone could be distinctly felt. I then placed a towel around the thigh, high up, giving it into the hands of a "looker-on," giving him instructions to pull downwards and upwards—at a given signal to loose his hold. The movements were successful. The effort of manipulation restored the head of the bone to the acetabulum, accompanied with evidences of crepitation. The bone escaped from the acetabulum as rapidly as it had been restored. I repeated my efforts three times, and the same number of disappointments greeted my anxious and persevering efforts. It was conclusive that a fracture existed, and the symptoms pointed to the pelvis. My anæsthetic being exhausted, and the patient still suffering from the shock of the injury, I ordered him beef tea and whiskey, promising to return in the afternoon and renew the efforts at restoration of the leg. I invited my friend, Dr. Carpenter, to see the case with me. Upon our arrival at the house we found our patient in a moribund condition. Dr. Carpenter made one or two movements of the limb, sufficient to diagnose the existence of a fracture. The patient died six hours after the receipt of the injury.

Through the courtesy of the deputy coroner, Dr. W. C. Smith, we had the privilege of making a post-mortem examination. The body was very extensively bruised. The integument over the right hip was not discolored. Upon making a long deep incision over the crest of the ilium a quantity of dark blood was discovered. The capsular ligament was extensively ruptured—the ligament. teres was torn completely away—the inner and lower border of the acetabulum was comminuted—the head of the femur was driven down under the ramus of the pubes, back towards the floor of the pelvis—ramus of pubes fractured—the piece two inches in length displaced. The head of the femur within the insertion of the capsular ligament was cut about half-way down into the cancellated structure. There was no fracture of the femur. The result of the examination explains fully

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why the reduction of the dislocation could not be maintained. In connection with the pelvic injuries there was a partial dislocation of the spinal column. The case was one of more than ordinary interest—one exhibiting decided symptoms of the existing troubles, while at the same time presenting difficulties that were not amenable to treatment. The facility with which the left thigh was reduced happily demonstrated the efficiency of manipulation under chloroform, while the success in manipulating the right leg was seriously embarrassed by the presence of extensive fracture—rupture of the capsule and ligament—complication which precluded anything being done save placing the limb in the most comfortable position and retaining it there with lateral support and gentle extension. This case would have been a very flattering one for the use of rope and pulleys, without the benefit of an anæsthetic. Under such treatment as this subject would have received at that time, immediate dissolution would have been a happy relief.

JACOB F. TREICHLER, M.D., 1806-1879.

During the past year death has again entered our ranks and removed one of our oldest members, Jacob F. Treichler, he being one of the original members at the formation of the society, while at the same time he was the oldest member in age, being in his seventy-third year at the time of his death, which took place at his residence at McKeansburg, this county, on the morning of June 11th, 1879, from apoplexy, induced by disease of the heart, which he had suffered from for several years. He had gone to his stable for his horse in order to visit a patient, and in turning to return to his house he was suddenly seized with vertigo and fell to the ground. His hostler with others of his household and neighbors carried him to the house and laid him in bed, and did what they could for him, but he soon became comatose and died in a very short time.

The subject of this notice was born near Kimmelsville, Bucks County, November 27, 1806, on a farm where his early childhood was spent. At the age of thirteen, he was sent to Doylestown to school, and after leaving school he went to Philadelphia where he was employed in a general wholesale store as a clerk, for some time, at least until the year 1828, when he commenced the study of medicine, but with whom I have been unable to learn, and after attending one course of lectures at the University of Pennsylvania, he commenced the practice in partnership with an old physician near Boyertown, Berks County, Pa., with whom he remained for one year, when he removed to McKeansburg, this county, engaged in the practice of his profession in connection with agriculture until his death. On the recommendation of the older members of the Schuylkill County Medical Society, he subsequently

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applied for examination at the University of Pennsylvania, and received a diploma April 3d, 1852. He married Mary Moser, the daughter of one of the residents of the place in which he lived, on the 27th day of March, 1839, by whom he had three children, two sons and a daughter, to all of whom he gave a good education, the eldest being a physician living at Honey Brook, Chester Co., the second son is a druggist and is living in Germantown, Phila. Co., and the daughter is very respectably married and living at Great Bend, Susquehanna County.

His first wife died February 16th, 1847, leaving him with his three children, the youngest being only one year old. He was very domestic in his habits and very fond of his children, whom he brought up very carefully. He remained single for twenty years, when he married Miss Lyle J. Bretz, of Carlisle, September 4th, 1867, who survives him. He always attended the meetings of the society regularly until weight of years began to bear heavily upon him, and during the time when nearly all of us forgot the society he got up reports, and attended regularly, as the representative of the county society, the meetings of the State Society. He was a kindly gentleman of the old school, who had a kind word and a general smile for all he came in contact with. He was a sound and safe practitioner, and he will long be missed by the many warm friends he left behind him, and his place among them will be hard to fill.

GEO. W. BROWN, M.D.,
Chairman of Committee on Necrology.

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REPORT OF THE SNYDER COUNTY MEDICAL SOCIETY.

THE Susquehanna River below the confluence of its west and north branches runs between Snyder and Northumberland Counties, a distance of seventeen miles. The Middle Creek rises in the western part of the county and runs east, and empties into Penns Creek near the Susquehanna River. Penns Creek drains the northeastern part of the county. The eastern part of our county is not well drained; a few miles west of the Susquehanna River the land is low, and in places marshy. The county has an area of two hundred square miles, along the northern part of which, extending from east to west, is Jack's Mountain, while toward the southern part, and running parallel with Jack's Mountain, is Shade Mountain. Between these mountains lie beautiful and fertile valleys formed by the rolling land. The principal streams are the Susquehanna River in the east, Middle Creek in the centre, and Penns Creek in the northeast. The creeks furnish an excellent water power, which has been utilized for years in the manufacture of flour and lumber. The population of the county, according to the last census, is sixteen thousand, of which nine-tenths are of Pennsylvania German descent. The principal part of the citizens are engaged in agriculture. The agricultural products are wheat, rye, corn, oats, and buckwheat. Middle Creek Valley consists of limestone soil. The northern part of the county consists also of limestone soil. The northeastern part, and the southeastern part of the county has a gravel soil. The water for domestic purposes is obtained from springs and wells.

The past year has been a reasonably healthy one, with the exception of an epidemic diphtheria occurring in West Beaver township, Perry township, and in Middleburg, and surrounding vicinity, during August and September, 1879. The number of cases was large, and all occurred in the several districts, within an area of a few miles. It was not affected to any marked degree by race, sex, or avocation, but was confined to children and was apparently contagious. The death-rate was about ten per cent., death resulting usually from invasion of the larynx and trachea; although a few died from exhaustion, after lingering nearly two weeks. No definite origin could be

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discovered; it occurred in a farming district. In treatment, better results were obtained from the free use of chlorate of potassa and tinc. of iron, with a nourishing diet, quinine, and occasionally stimulants, than anything else. Local treatment gave no satisfactory results.

Scarlet fever has prevailed in some parts of the county during last winter, but has not shown itself exactly epidemic. Children as a general thing are early vaccinated. May not this prevent an epidemic, as vaccination has generally been recognized as not only a preventive of smallpox, but also a modifying agent in other eruptive diseases?

We subjoin a sketch of a peculiar disease treated by H. H. Bordner, M.D.

Dr. Bordner writes: May 28th, 1879, I was called to attend Mrs. S. H. U., aged 42 years. In four hours after my arrival she was delivered of a healthy male child, weighing 13½ lbs. Four days after the birth of this child, it commenced to pass arterial blood with its urine. This continued for eight days, when I was called to see the child. I found no inflammation at the bladder, nor along the urethral canal. I could not conceive where the hemorrhage was from. The remedies I deemed advisable were, ergot, opium, and copaiba. This treatment stayed the hemorrhage for six days, and it then made its appearance again; the same treatment was resorted to, which checked the hemorrhage for a few days only. This hemorrhage made its appearance a third time in the urine, and from this time out it became periodical. Antiperiodics were now given in conjunction with the former treatment. However, the child grew fretful, especially while in the act of micturition. While the hemorrhage continued the child micturated twice in twenty-four hours, when no hemorrhage was present the child micturated five or six times in twenty-four hours. The antihemorrhagic and antiperiodic remedies were fairly tried, but proved of no avail. Marasmus finally set in, and terminated the life of the child in sixty-six days. No malarial influences were in the vicinity. I was called to another case, similar to the one quoted above. I gave it small doses of bicarb. of soda frequently repeated, and to my surprise the child got well.

Our Society has received during the past year, a number of earnest and valuable members. We meet every three months alternately in Middleburg, Selinsgrove, and Freeburg. And though the distance to be travelled to reach either place necessitates the loss of a whole day, yet the attendance is usually large. The benefits derived from these reunions of the fraternity can scarcely be overestimated; the

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interchange of opinion, the friendly discussion, the disclosure of new ideas and discoveries, and last but not least, the good feeling and lasting friendship engendered among those whose lives are devoted to the same noble profession, are but a few of the advantages of medical societies.

Respectfully submitted,

R. ROTHROCK,
J. Y. SHINDEL,
P. HERMAN,
Committee.

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REPORT OF THE TIOGA COUNTY MEDICAL SOCIETY.

As a Society we still live and are prospering, and when our members pay their dues we will be out of debt and money left in the treasury. During the year three of our members have left and have become members of other societies. One removal by death (Dr. Griffin of Morris Run). We have had no epidemics. Probably pneumonia has been as extensive and as fatal as any disease among us. Diphtheria has been reported in several parts of our county with more or less fatality. But the year has been a healthy one.

Respectfully submitted,

H. G. MARTIN,
E. S. ROBBINS.

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REPORT OF THE YORK COUNTY MEDICAL SOCIETY.

THE following resolutions were unanimously adopted:—

YORK COUNTY MEDICAL SOCIETY,
YORK, PA., May 6, 1880.

At a regular meeting of the Society, held at Hanover, this county, on Thursday last the 6th inst., on motion of Dr. W. S. Roland, seconded by Dr. S. J. Rouse, the following resolutions were adopted:—

1st. This Society respectfully invites the attention of the State Medical Society, for advice as to the first and second standing resolutions, relative to the duties of "Medical Examiners" and members of county societies, as set forth on page 23, Transactions of 1878, and page 916, Transactions of 1879.

2d. This Society respectfully asks the State Medical Society, what action shall be taken by county societies where it is known that the spirit of said standing resolutions is manifestly transgressed.

3d. That the Secretary shall immediately forward a copy of the above resolutions to the Permanent Secretary of the State Medical Society.

Of the diseases prevalent during the past year, I name diphtheria and scarlet fever. Of other diseases about the usual number of cases have been reported, and freely discussed.

The Society held its regular monthly meeting; one meeting was held at Wild Cat, one in Hanover, both places being in the county, and one a very pleasant union meeting, with our brethren of the Lancaster County Medical Society, and representatives from other county societies, at Columbia. The attendance at all the meetings at home and abroad was full in numbers, and always attractive and interesting.

This Society has adopted a standing rule, "that, if any member shall be absent for three consecutive monthly meetings, and does not offer a valid excuse for his absence, his name shall be dropped from the roll of membership." The working of the rule so far has

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been productive of a larger attendance, but whether it will always continue so, time only will tell; under the rule a few names have been dropped, but they generally were members who never did attend any of the meetings.

A Hospital and Dispensary Movement.—Through the kindness and generosity of Mr. Samuel Small, Sr., an honored citizen, widely known, and endowed with liberal means, and a true philanthropist, and encouraged by the members of the York County Medical Society, who are heartily in sympathy with the movement, there will shortly be opened in York, a hospital and dispensary for the alleviation of the sufferings of the needy, and for those who may require medical attendance, with home comforts, as also for the treatment and dispensing of medicines to poor "out patients." For this purpose Mr. Small has purchased, in a suitable location, a large and conveniently arranged three story brick building, with beautiful grounds surrounding it. The building is now, at the donor's expense, undergoing a most thorough course of repairs and improvements, and when finished will be second to no other institution of the kind outside of the large cities. It is expected that it will be ready for occupancy early in the fall. There is a provision in the by-laws that the Medical Staff shall be appointed on the recommendation of the York County Medical Society.

Our Society is in a healthy state; its meeting are well attended; the essays and discussions are valuable and interesting, and its aim and purpose are to keep pace with the advance in medical science. For one who has long been in the professional harness, it is truly a pleasant thought to contemplate the progress that has been made in the profession. The old path so long followed, often for want of better opportunities, has in a great measure been abandoned, and a new and better course adopted. The advantages now afforded by our medical schools and hospitals, the benefits derived from medical societies, and the many ways that are open to the student and observing practitioner in pursuit of medical knowledge, cannot fail of being a blessing to the profession, and a benefit to mankind.

Respectfully, etc.,

WM. S. ROLAND.

YORK, May, 1880.

Case of Spina Bifida, reported by Dr. A. R. BLAIR, of York.

Mary S., the subject of the following case, was born Jan. 1, 1876, with a lumbar spina bifida about the size of a small orange, and

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situated exactly in the median line and over the spinous processes of the fourth and fifth lumbar vertebræ. Like all these tumors, it was translucent and fluctuating, was easily emptied, and the finger could then be inserted into the orifice of communication with the spinal canal, and whilst it was retained in that position prevented the sac from refilling. The child was born at full time and was a remarkably stout and healthy looking infant, head of natural size, well formed, and entirely free from cerebral symptoms. It had perfect use of the lower extremities, though there might have been perhaps a doubtful degree of talipes of right foot. The growth of the tumor was noticeable in proportion to the infant's growth. The child presented no other ailment, was well nourished and did not seem to suffer any inconvenience, except when pressure was made upon the tumor. As this was the first case of the kind that I had ever seen, very naturally I felt that I wanted the advice and experience of some one whose field of labor was more extended than my own, and thus establish beyond doubt the diagnosis of the trouble, and acquire information as to subsequent treatment. Dr. Kerr with true professional courtesy early in the history of the case, at once responded to my request to meet me in consultation. After a careful examination of the little patient by the doctor, I was fully assured of the correctness of the diagnosis; he gave me at the same time a very unfavorable prognosis, also presenting me with a paper read before the Pennsylvania Medical Society, containing statistics of operations and fatality in cases of spina bifida, which were not at all encouraging to the idea of trying any radical measures. The doctor also related several cases which occurred to himself several years ago, in which death ensued at an early age. Here was a quandary, and what shall I do, was uppermost in my thoughts. The child is the first-born, and *the only child* of young, admiring, and anxious parents, and they cannot be made to understand why their apparently healthy and beautiful child could not be saved to them by spontaneous cure or operative means. Shall I attempt a radical cure by the counter-irritation of iodine, together with the use of mechanical support? Shall I dissect away the cyst and attempt to unite the edges by means of sutures? Shall I puncture and empty the sac occasionally, with subsequent compression by gutta-percha or metallic plates? Shall I attempt subcutaneous division of the neck of the sac by means of ligature, hoping by this means to obliterate the communication between the sac and spinal theca, through the effusion of lymph? Or shall I cut away part of the walls of the sac, and then unite the skin across, thus avoiding dan-

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ger by not opening the sac itself? Or shall I have faith in a spontaneous recovery, and patiently wait? These questions occurred to me as a means of cure, but in all I saw nothing but *fatality*, and decided by the doctor's advice to resort to no active remedial treatment, explaining to the mother of the patient that the best to be hoped for was that the child might possibly live and grow up with the tumor no larger than the present size, assuring her at the same time of the probability of death early in life. This decision to the mother, although not agreeable, was received with submission and acquiesced in, rather than that I should attempt doubtful operative measures to effect a cure. The patient continued under my care, and I noticed the gradual increase in the size of the tumor, with the growth of the child, occasionally the sac was emptied by accidental breaking of the thin skin, and the consequent discharge of several ounces of straw-colored serum, at which times the tumor would become loose and flaccid, and I would apply compresses of soft linen supported by woollen pads and adhesive strips. The sac would fill rapidly again and the tumor would become tense as before; the child not seeming to suffer in the least, but, on the other hand, to be benefited by the loss of serum. Four times during the life of the child was the sac emptied in this manner at intervals averaging nearly two months, with no marked constitutional disturbance.

Aug. 25th. The mother became alarmed from the peculiar startled expression and twitching of the muscles of the face and arms of the child; she sent for me and told me that she believed her child could not see. Convulsions had set in, and the child died Aug. 28, aged seven months and twenty-seven days. Permission to make a post-mortem examination was refused. Thus, gentlemen, I have given you a hasty and cursory report of a case that was of marked interest to me, and one from which I have garnered but little that would be of value to you in the treatment of similar cases. Cures, it is true, are reported by means of active remedial treatment, also by spontaneous recoveries, but I have my doubts, and still firmly believe with Dr. Erichsen, that if a cure at all does take place, it is probably well advanced in the curative stage during *intra-uterine* existence. Dr. Lawrence says of spina bifida, "that these defects of development are due to intra-uterine arachnitis, and *not mere* arrests of vertebral ossification. Thus the effusion into the sac of the spinal cord takes place in consequence of a transitory inflammation at a period of fœtal life, *prior* to the firm junction of the laminæ with their corresponding bodies. By this effusion the laminæ are dis-

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placed so widely that union is rendered impossible, and a permanent defect is caused." In support of this theory of the formation of spina bifida, we have the circumstance that plates of cartilage constituting the laminæ are not infrequently found in the soft structure overlying the cyst. "Another fact in support of the same view is, that now and then, when spina bifida and hydrocephalus are coexistent, the one will subside greatly while the other increases." This coexistence is not infrequent, especially in the worst class of cases. That my paper may have benefited you in any particular, or developed anything tangible by which you might see your way clearly in the treatment of this rare congenital trouble, was my earnest desire, and yet I feel that I cannot close my article without giving you the benefit of the impertinent interference of the homœopathic craft of this place. The mother was importuned through the solicitors and disciples of Hahnemann to give the child phosphates under the Hahnemann school, and by this means *the missing vertebræ(?)* would be restored, as they had by the recommendation of the *bone making* medicine supplied many vertebræ to the imperfect spinal columns of unfortunate babies. The mother doubted, and I must confess that my faith would not have been shaken in their *pellets* and *dilutions* had they said *entire spinal columns*, for then I would have known that it was the introduction of the phosphates by the impelling process of the vital principle condensed and perceptible with that exquisite and ecstatic sensibility, and that force that impels the emitted globules of indescribable pleasure to the dome and centre of this earthly heaven. I conclude, gentlemen, with presenting a few cases in order from statistical tables in brief.

Large lumbar spina bifida; treatment by ligature; death; Dr. Paget.

Large lumbar spina bifida; treatment by dissecting out the sac and uniting the edges; death; Dr. Hilton, Guy's Hospital.

Lumbar spina bifida; spontaneous contraction; death from hydrocephalus; Dr. Lawrence.

Lumbar spina bifida; spontaneous recovery; Dr. Morris.

Spina bifida; puncture; death from spinal arachnitis; Dr. Tatum.

Spina bifida; excision; recovery; Dr. Nott.

Spina bifida; puncture; iodine injection; recovery; Dr. Brainard.

Spina bifida with hydrocephalus; paracentesis; death; Dr. Ogle.

Pedunculated spina bifida; ligature; death; Dr. Erichsen, University College Hospital.

Lumber spina bifida; operation for radical cure; death; Dr. Borlase Childs, Metropolitan Free Hospital.

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Lumbar spina bifida; commencing hydrocephalus; paracentesis of tumor; death; Dr. Hutchinson.

Large lumbar spina bifida; puncture; death; Dr. Barnes, Royal Maternity Hospital.

Spina bifida over first lumbar vertebra; puncture and injection of iodine as per recipe; iodine gr. x, pot. iodid. ℥ss, glycerine f℥j; recovery; Dr. Morton, Glasgow Royal Infirmary. A second successful case is also recorded.

Spina bifida treated *antisept'cally;* recovery; Dr. Wilson, Glasgow University.

Two cases of spina bifida; setons passed; death; Dr. Lloyd Roberts.

Spina bifida; injection of Dr. Morton's solution of iodine; iodide potas. and glycerine; recovery; Dr. Watts.

A line of treatment very similar has been followed by several American surgeons with instances of success.

Five cases of spina bifida lumbalis; aspiration of the sac, and use of compresses by Dr. G. Ranke, of Munich, Polyclinik. Four of which died, while the fifth still lives. They were not complicated with hydrocephalus or hydrorachis. Dr. Ranke believes that spina bifida lumbalis and lumbo-sacralis simplex depend upon adhesion of the spinal cord to the outer skin in the first months of fœtal development, the non-closure of the lumbar and sacral arches being the necessary consequence of this.

Dr. Holmes, in his work on the surgical treatment of the diseases of infancy and childhood, says, "that in fact *the radical cure* of such a tumor (spina bifida) is so rare a result of any method of treatment, that it is always regarded as a surgical curiosity. Whatever curative procedure may be adopted, there is danger that diffuse inflammation will result and extend from the interior of the sac to the spinal membranes, or to the cord or such of its nerves as may be implicated in the structure."

Dr. Prescott Smith, so much referred to on this subject, says, "of twenty tumors in the lumbo-sacral region which he had the opportunity of observing, there was only *one* in which the cord and nerves were not connected with the sac."

Purpura Hæmorrhagica, by Dr. H. ALLEMAN, of Hanover.

Mrs. S., aged 55, a well-to-do farmer's wife, had a decayed incisor tooth extracted, when for a day and night blood oozed from the cavity. Becoming alarmed at its continuance, I was sent for. By the use of styptics and compression it was eventually stayed. Her languor, loss of muscular strength, and pain in the limbs were

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hardly, as I thought, produced by the hemorrhage. It was supposed that she did not lose more than eighteen ounces of blood. Her pulse was nearly natural; respiration normal. No extra heat of surface, but complained of constipation. On closer examination I found her arms, trunk, and lower extremities covered with purple spots, irregularly scattered over them. They were of various sizes and not raised. On puncturing with a lancet I found them in the skin, but some, and these were the largest and darker in color, were in the cellular tissue under the skin. With a wet sponge I could easily remove the spots from those I had punctured. I knew now that I had a case complicated with purpura hemorrhagica. The prominent symptom of the complaint being constipation, and the lady being of full habit, I treated her with brisk purgatives and the antiphlogistic regimen. By the sixth day the skin had a dirty-yellow tinge, and in two weeks not a trace of the purpura remained. More than one-half the derm surface was implicated. It is almost certain that the immediate cause of the purpura hemorrhagica is one affecting the whole system, and none seems so probable as an alteration in the composition and vital properties of the blood. Supposing this to be so, it would necessarily act in the bloodvessels themselves, particularly the capillaries. The fact is, that we do not know the conditions that produce purpura hemorrhagica; it is not a disease *sui generis*, although medical authors have placed it among the exanthemata. It may appear as an accident in almost any disease. I have seen it in bad cases of phthisis pulmonalis and anasarca, as well as in the mildest forms of constipation. The spotted or maculated typhus fever of Ireland, described by Dr. Graves, was simply *typhus*, with the condition of purpura hemorrhagica, for the purpura did not appear in all the epidemics he describes of typhus, nor in all the cases in the same epidemic. So that I do not consider purpura hemorrhagica an idiopathic disease, but a symptom or condition of almost any disease.

Œdema Gravidarum.—Dr. F. Deisinger read a paper upon this subject.

He accepts the views generally put forth that pressure is the cause, but urges upon the profession a due consideration of the means for ameliorating this always unpleasant and sometimes dangerous condition. When the labiæ are swollen he has resorted to puncture, and for the dropsical effusion in other parts he has met with marked success from the fl. extr. of buchu. In two cases, the size of the abdomen after delivery was equal to that of full term pregnancy, and in one of these cases the abdominal measurement

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after delivery was forty-eight inches, while her usual circumference was only twenty. The child in this latter case was small, and survived only a few hours. In both cases albumen was present in the urine, but nothing prejudicial to the patient occurred.

Dr. J. H. BITTINGER read a paper upon diphtheria; after describing the disease, he makes the following remarks upon treatment: A powder of calomel, leptandrin, and opium, proportioned to the age of the patient, to be repeated every five hours until three have been taken, followed by a Seidlitz powder; I then direct the use of a saturated solution of chlorate of potassium, with the addition of hydrochloric acid to be given every two hours. I also use tincture of chloride of iron, four times a day. As a stimulant I have derived the best results from alcohol, and I use it freely throughout the disease. In a few cases I used local applications of carbolic acid, alcohol, and iodine, properly diluted, with, I think, good results.

Thus far I have not met with any cases of paralysis, as a sequel, either general or local; but if at any time I should, I would medicate hypodermically with strychnia, and put the patient on iron and quinine. Though it is asserted that calomel should not be used in the acute inflammatory stages, my observation, in adopting it in the treatment of the initiatory stage of diphtheria, has led me to continue its use, and, as I think, with good results. I am not able to say that alcohol acts as a specific, but I am satisfied that in all cases that were treated by it recovery was more rapid and convalescence less prolonged. From what I have read and observed, I am led to infer that the tendency in some epidemics is to recovery, irrespective of the manner of treatment, while in other epidemics the mortality is much greater. Whether it is due to a specific poison, or a more perfect saturation of the circulation with the poison, remains to be discovered. It is very certain that certain forms of the disease are less amenable to treatment, and even set at defiance all therapeutical remedies.

A Case of Leucocythæmia. By Dr. JAMES W. KERR.

G. S., a boy aged 12 years. One year ago this boy was observed by his father, an intelligent physician, to become pale, weak, and emaciated, with some cough; appetite good, sleeping well, running about, playing, until about three months ago, his father noticed him having some difficulty in breathing, when he found a prominence under the ribs in the left hypochondriac region, hard and without pain. This enlargement has continued to descend until it now

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occupies the entire left side of the abdomen, extending to within three inches of the pubis and Poupart's ligament, crossing over the linea alba, and about three inches to the right of it. This enlargement is hard, smooth, not lobulated, without fluctuation or pain. The right side of the mass is sharp and well defined—it can be well grasped by getting the fingers under it. Abdominal veins over it enlarged. From its originating in the neighborhood of the spleen, descending gradually downwards, without pain, its surface smooth, without nodules, without fluctuation, we presume this mass to be an enormously enlarged spleen. It seems to be a fibroid or hypertrophied condition of the organ. As neither the blood-glands nor the lymphatics are affected, this would seem to be a pure splenic leukæmia. The blood of this boy was carefully examined under the microscope (eight observations having been made), by Drs. Johnson, of Baltimore, and Rehn, of York, both of whom are well-qualified microscopists. Dr. Johnson, I believe, made five observations; by estimation found fifty white to one hundred red corpuscles. Dr. Rhen also found admirably displayed under his microscope this same condition of blood. In one view the red corpuscles arranged themselves in groups, while the white ones were found by themselves all around. In all these views there was but little space between the cells, the whole field being occupied by them. Now, while the normal proportion of white to red cells is variously estimated from 1203 white to 300 red ones, you will see how enormous the disproportion in this case. Dr. Rhen at this same examination found 123 white to 300 red ones, by estimation, in blood taken from the finger of the boy's father.

Is not this case one of interest as illustrating the declaration that the spleen is the "birth-place of the white and the burial-ground of the red corpuscles"?

Dr. Da Costa, in *The Medical and Surgical Reporter*, Aug. 22d, 1874, reports five observations, as follows, in a case of leucocythæmia: First observation, 60 white to 68 red; second observation, 48 white to 121 red; third observation, 34 white to 124 red; fourth observation, 55 white to 88 red; fifth observation, 54 white to 128 red.

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REPORT OF THE MERCER COUNTY MEDICAL SOCIETY.

THE regular meetings of the Mercer County Medical Society have been changed to bi-monthly instead of quarterly, as heretofore.

Although our members are scattered and *few* in proportion to the whole number in the county, it is believed an increase in the number of meetings will develop increased efforts to make them more beneficial and more attractive to those physicians who remain outside the Society. Our constitution and by-laws have been revised and amended, and a provision for the appointment of medical examiners of prospective students of medicine made. Our membership for 1879 is incorrectly reported in the Transactions for that year. It should have been 24, not 26. One member had withdrawn and another had been suspended for non-payment of dues, and finally dropped from the roll. There has been more than the usual amount of sickness in the county during the past year. No wide-spread epidemic has prevailed, but diphtheria has been endemic in several places. It has prevailed in and about West Middlesex during the autumn and early winter months quite extensively, though not violently—a very large proportion of the cases having recovered under ordinary treatment—but in all the bad ones more than ordinary efforts were made to sustain the patients by nourishment administered with as much regularity and persistence as were the medicines. Dr. Livingston, of that place, writes as follows: "The number of cases that have occurred here during the past year has been about 230—most of which have been in town. Our population is believed to be about 2000. Among them were 14 deaths, and in the deaths are included four in which diphtheria was a complication of other diseases—two of typhoid fever in the third and fourth weeks, respectively, and two of catarrhal troubles." The Doctor remarks on the subject of etiology: "I am satisfied that it is a specific disease, caused by a specific poison, and not a filth disease; that it is as fatal where the hygienic surroundings are good, where they have all that love and money can get, as in the huts of the poor, where they have but the bare necessaries of life; and that it generally causes death as a blood poison, though occasionally by mechanical

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obstruction of the air passages. Its effects may last for years, in fact may never be entirely recovered from."

This mortality is but little over $\frac{6}{100}$, and is certainly very low for endemic diphtheria. As a partial explanation, I find that the Doctor included in his list of 230 all the cases of sore throat that exhibited any membranous formation. For many years I have been in the habit of classifying my cases in my own way, but I find that Wagner and other pathologists have a croupous form, and that my milder cases fall very appropriately into that class; and such it seems was the character of a large proportion of Dr. Livingston's cases. The line of separation between croupous and genuine diphtheritic sore throat is not always easily made during the first few days of their course. As a general rule, and especially is this true of the last year, the subjective symptoms have been as severe in the croupous as in the diphtheritic cases. Chilliness, headache, general muscular pains, and fever, have characterized both; but on looking into the throat in the croupous cases the inflamed surfaces which are generally on the tonsils and fauces, rarely on the pharynx, and seldom diffuse, exhibit sometimes a single, oftener several whitish or straw-colored spots from $\frac{1}{16}$ to $\frac{1}{4}$ of an inch in diameter. These spots disappear in a short time, generally within three days, leaving the mucous membrane beneath unbroken but slightly congested, and the patient convalescent. In fact, the croupous cases are convalescing just at a time when the objective symptoms of the really diphtheritic cases are developing their true character.

Malaria, although diminishing in some degree, is nevertheless perennial here, and continually puts its impress, sometimes almost invisibly, sometimes more plainly, and at other times clearly, upon all other morbid conditions, and I have been impressed with the belief that these otherwise mild croupous cases have had their subjective symptoms aggravated by its influence.

So far as the pain in the throat, parotid gland, side of the head, and dysphagia are concerned, the croupous cases are as bad while they last as the diphtheritic, but they uniformly recover.

Dr. L. E. Myer, of Pardoe, writes: "We have had no epidemic during the past year, but a considerable number of cases of gastro-hepatic catarrh; they yielded readily to treatment. I have had quite a number of cases of typhoid fever, which could invariably be traced to some local source of organic infection. I found that I could uniformly control the headaches—by which all my patients suffered greatly—by the use of full doses of bromide of potassium, frequently repeated. With this and the use of tonics the average temperature seemed diminished and the exacerbations less manifest.

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I gave from 40 to 60 grains of the potass. bromide, every two or three hours, until relief was experienced. I had a case of tubercular meningitis in a child *three months old.* The semeiology was well developed in each of its three stages, and the diagnosis confirmed by a post-mortem examination."

Dr. E. J. Tidd, of Clark, reports twenty cases of diphtheria in the autumn, of mild form—no deaths. This endemic was immediately followed by one of croup, of which he had forty cases, with six deaths. Their ages ranged from nine months to twelve years. The fatal cases all terminated within fifty-six hours. The recovered cases were tedious, some of them continuing under treatment twenty days. They nearly all had pharyngitis, and a few had laryngeal exudation. Treatment the same as for his diphtheritic cases, with the addition of syrup of ipecac. as an expectorant, and occasionally as an emetic. His treatment for diphtheria was that generally employed, with milk and alcohol freely administered as a stimulant and aliment. He met with a good deal of catarrh and "some pneumonia," with more than the usual number of neuralgic cases. An endemic of measles broke out during the winter at the Soldiers' Orphans' Asylum near Mercer. I have no accurate data, further than that out of 300 children over 200 had the disease, and that it spread to the town, about half a mile distant, and there became epidemic.

I have no data upon which to base reports from other parts of the county, but from my intercourse with members at our meetings I conclude that their sanitary condition has been rather better than in the other localities already mentioned.

Our own town, Sharon, situated in the valley of the Shenango, and on its hill sides—the valley being fully half a mile wide—and bounded on each side, east and west, by high hills, has given us a great deal of work, especially from February 1st to April 30th of this year. During the remainder of 1879 we had, in addition to the *usual* summer diseases, occasional cases of scarlet fever and measles, both of mild forms. In the autumn and early winter a considerable number of diphtheritic cases occurred. Of these, some twelve were of malignant form, showing blood-poisoning as conspicuously as it can be seen in any well-developed case of septicæmia. Three of these twelve cases died.

The number and character of our pulmonary diseases have been unusual since February 1st. Catarrh from the tip of the nose downward; catarrhal pneumonia, many cases; croupous pneumonia and pleuro-pneumonia, of each a few cases, and an occasional case in which the diaphragm and convex surface of the liver seemed to be involved. The cases were of all ages, from the infant a few days

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old to the nonogenarian. Many little children sucoumbed, and one lady aged 91 years died—died within 48 hours from the invasion. A noteworthy symptom, one of quite unusual uniformity, has been the vomiting in the early days of the disease. This symptom has been so annoying that I have found medication quite difficult during its continuance. For little children, a favorite prescription with me for several years has been tr. verat. and carb. ammonia, but owing to the frequency of the vomiting I have felt obliged to withdraw the veratrum in many of my cases. One can easily understand, by studying the distribution of the pneumogastric, phrenic, and sympathetic nerves, how this symptom may occur in pulmonary affections as a result of reflex action; indeed, it seems singular that it is not a more general accident of pneumonia. Acute pulmonary diseases have been far less prevalent in surrounding neighborhoods and in other parts of our county than in Sharon, a fact which seems to point to some local cause. Usually we enjoy a greater immunity from this class of diseases than our neighbors, and have been accustomed to account for it by our protected situation, the direction of our valley being northeast and southwest, and our prevailing cold winds from the east or southeast; but during the past winter and spring the atmospheric pressure has been almost constantly below 29 inches, and by reason of location and the mildness of the winter, the humidity has been great, with frequent changes in the direction of the winds. These conditions, except the humidity, have prevailed, no doubt, to nearly the same extent in all parts of the county, and where pulmonary affections have not been more than usually prevalent. It seems, then, that the excessive humidity of the locality, added to the other prevailing meteorological conditions, is a sufficient explanation for the cause of so many pulmonary diseases.

Herewith I inclose two obituaries of deceased members, and a list of our officers and members.

E. GRISWOLD,
Secretary.

THOMAS M. BROWN, M.D., 1837–1879.

BY E. GRISWOLD.

THOMAS M. BROWN, a member of the Mercer County Medical Society, was born and raised in the county, and, having obtained a fair preliminary education, he began the study of medicine with the late Dr. De La Cosset, of Greenville, a former vice-president of our

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State Society, and graduated at the University of Buffalo, in 1860. He at once began practice in Clarksville, where he met with a liberal patronage. In 1862 he entered the military hospital service at Alexandria, Virginia, as an acting assistant surgeon U. S. A., where he spent about a year and then returned to Clarksville and resumed practice, with encouraging success. Here he soon began to suffer from malaria, and finding the practice at this place, involving a good deal of country work, too hard for him, he moved to Sharpsville, only a few miles distant, but a more favorable location. He still suffered from the debilitating effects of malaria, and in 1873 began to have a cough apparently supervening upon an attack of bronchial catarrh, and by the fall of 1874 he was forty pounds under weight, greatly debilitated, and short of breath. He had a frequent pulse, and expectorated blood. Percussion revealed dulness, and auscultation more abnormal than normal sounds. He went to Colorado Springs, twenty miles south of Denver, November 1st, and remained there thirteen months, until December, 1875, when he returned to Sharpsville greatly improved. He had regained his normal weight, his appetite, and, in a great measure, his strength; he coughed but little, and his respiration and circulation were much improved. Work awaited him, and he at once began it, attending to town and country practice the remainder of that year, and the whole of the next (1876), up to March, 1877. The latter part of this period his pulmonary symptoms all returned, and he once more sought relief in change of climate by returning to Colorado. This time, however, he did not realize his expectations, and came home at Christmas of the same year emaciated and debilitated; but with unbroken spirits and undiminished energy he went to work and kept at it until June, 1879, when his strength became so reduced that he was compelled to desist. He lingered until Sept. 5th.

Dr. Brown was never strong enough physically to do the amount of work many country practitioners have done, although for several years he attended to quite a large practice, more than he was able to do. His mental constitution was excellent, although he presented individualities which placed him at a disadvantage on first acquaintance; these, however, soon passed to his credit on a further knowledge of his qualities. He was taciturn, and looked upon by many as difficult to approach; but he only needed to be approached in order to dispel that illusion. In practice he took plenty of time to consider well all the points of his case before giving an opinion, and although he seemed slow to those unacquainted with him, his conclusions were generally correct, and highly valued by his numerous tried friends. All physicians in extensive general practice doubtless occasionally meet patients who want to know *at once* what "ails the patient," and in many cases wherein time is required to devolop the significance of symptoms the reserve that attaches to tacturnity answers an excellent purpose as a barrier to such inquisitiveness, and enables the practitioner to postpone his answer until the case is developed and his judgment is correctly formed. Dr. Brown was a man of excellent qualities both of head and heart, and will long be remembered by appreciating friends. He was twice married, his second wife surviving him.

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JOHN BARBER, M.D., 1836-1879.

BY E. GRISWOLD, M.D.

Dr. BARBER was born at Canfield, Ohio, March 26, 1836. His father moved to Mercer County, Pennsylvania, while he was still young. He was prepared for college in Mercer Academy, finished his preparatory education at Westminster and Jefferson Colleges, began the study of medicine in Mercer borough in the office of the late Dr. James McGoffin, in 1859, and graduated at the University of Pennsylvania in 1862, and was soon afterwards commissioned by Gov. Curtin Assistant-Surgeon 1st Penna. Reserves. He was afterwards made Surgeon of the same regiment and was mustered out with it at the expiration of its term of service. Soon afterwards he was commissioned Surgeon of the 5th Penna. Heavy Artillery. On leaving this regiment he brought with him a commission as Lieut.-Colonel by brevet from the President of the United States, as a reward for faithful and meritorious services. It was uncommon for men as young in the profession as Dr. Barber to gain such preferment, and as political influence had nothing to do with it in his case, it is but fair to infer that his abilities, added to a high order of social qualities, made him conspicuous. After leaving the army, he located for a short time in Chicago, and in the spring of 1866 came to Sharon, in our county. He soon became a member of our County Society, and in 1873 of the State Society.

In private life, after he came among us, his genial nature and social qualities made him a favorite wherever known; he always seemed to make those about him feel that it was not good to be alone, and that a little merriment was better for "dull care" than a dose of physic. His professional standard was high in all its relations. He was punctilious in the observance of ethics, and in doubtful cases gave his brother practitioner the benefit of the doubt, rather than incur the imputation of a violation of the code. He seemed to be strung with the finer cords of our nature, and to despise those baser notes by which certain pettifogger's seek to sound their own praises, and to gain by their *arts* what they never could by their professional abilities; and while he despised all that was base in his intercourse with his patrons and the public in general, he acquired the confidence of the people on a sound basis—that of honest and fair dealing. His professional ability was seldom distrusted; his professional integrity never. He was kind, generous, charitable, and sympathetic. Always ready to assist the poor and the weak in their bodily ailments, ready to forgive their foibles, and sometimes moved to supply their general wants. Among his professional associates he was universally respected for his talents, and his counsels always commanded their confidence. Selfishness had no place in his composition, and while always anxious to learn, he was quite as willing to impart of his store of information to his less favored brethren.

Dr. Barber was married about 1871 to Miss Carver, a member of a prominent family here. The issue of this marriage, a beautiful

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little girl, was taken away with tubercular meningitis in her second year, the mother following in less than a year, after a tedious course of hereditary phthisis pulmonalis. He was not, however, left alone; the tedium and torment of his long illness were mitigated by the kind and loving offices of a devoted mother and sister. The malady by which Dr. Barber was removed was dropsy dependent upon hepatic disease, and was, as such cases usually are, of slow progress, accompanied with much suffering, which he bore with heroic fortitude. He died Sept. 27, 1879. *Requiescat in pace.*

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PRESIDENTS AND PERMANENT MEMBERS OF THE STATE SOCIETY.

OFFICERS AND MEMBERS OF COUNTY SOCIETIES,

AND

ALPHABETICAL LIST OF MEMBERS OF COUNTY SOCIETIES WITH THEIR POST-OFFICE ADDRESS.

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PRESIDENTS OF THE SOCIETY.

1848.	
*Samuel Humes, M.D.,	Lancaster County.
1849.	
*Prof. Samuel Jackson, M.D.,	Philadelphia County.
1850.	
*Wilmer Worthington, M.D.,	Chester County.
1851.	
*Charles Innis, M.D.,	Northampton County.
1852	
Hiram Corson, M.D.,	Montgomery County.
1853.	
*John P. Hiester, M.D.,	Berks County.
1854.	
Jacob M. Gemmill, M.D.,	Huntingdon County.
1855.	
*James S. Carpenter, M.D.,	Schuylkill County.
1856.	
*R. La Roche, M.D.,	Philadelphia County.
1857.	
John L. Atlee, M.D.,	Lancaster County.
1858.	
*Smith Cunningham, M.D.,	Beaver County.
1859.	
*D. Francis Condie, M.D.,	Philadelphia County.
1860 and 1861.	
*Edward Wallace, M.D.,	Berks County.
1862.	
Geo. F. Horton, M.D.,	Bradford County.
1863.	
*Wilson Jewell, M.D.,	Philadelphia County.

* Denotes deceased.

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	1864.	
J. D. Ross, M.D.,		Blair County.
	1865.	
Wm. Anderson, M.D.,		Indiana County.
	1866.	
*James King, M.D.,		Allegheny County.
	1867.	
Traill Green, M.D.,		Northampton County.
	1868.	
John Curwen, M.D.,		Dauphin County.
	1869.	
*Wm. M. Wallace, M.D.,		Erie County.
	1870.	
Samuel D. Gross, M.D.,		Philadelphia County.
	1871.	
*J. S. Crawford, M.D.,		Lycoming County.
	1872.	
A. M. Pollock, M.D.,		Allegheny County.
	1873.	
S. B. Kieffer, M.D.,		Cumberland County.
	1874.	
*Washington L. Atlee, M.D.,		Philadelphia County
	1875.	
Crawford Irwin, M.D.,		Blair County.
	1876.	
Robert B. Mowry, M.D.,		Allegheny County.
	1877.	
D. Hayes Agnew, M.D.,		Philadelphia County.
	1878.	
J. L. Stewart, M.D.,		Erie County.
	1879.	
Andrew Nebinger, M.D.,		Philadelphia County.
	1880.	
John T. Carpenter, M.D.,		Schuylkill County.

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PERMANENT MEMBERS.

NAMES.	POST-OFFICE.	COUNTY.	DATE OF MEM'SHIP.
Agnew, D. Hayes	Philadelphia,	Philadelphia,	1870
Ainey, David C.	New Milford,	Susquehanna,	1874
Albright, F. G.	Lancaster,	Lancaster,	1874
Alexander, J. W.	Canonsburg,	Washington,	1877
Alleman, Horace	Hanover,	York,	1880
Allen, E. P.	Athens,	Bradford,	1863
Allen, John M.	Chester,	Delaware,	1870
Allis, Oscar H.	Philadelphia,	Philadelphia,	1874
*Allison, George W.	Beaver,	Beaver,	1862
Allison, T. H.	Kittanning,	Armstrong,	1880
Allison, T. M.	"	"	1876
Amick, J. H. B.	Schuylkill Haven,	Schuylkill,	1880
Ammerman, Alonzo	Danville,	Montour,	1877
Anawalt, J. W.	Greensburg,	Westmoreland,	1867
Anderson, Joseph W.	Ardmore,	Montgomery,	1872
Anderson, William	Indiana,	Indiana,	1862
Andrews, Thos. H.	Philadelphia,	Philadelphia,	1876
Armstrong, R.	Lock Haven,	Clinton,	1878
Arney, G. F.	Altoona,	Blair,	1880
Arnholt, M. A.	Buchanan,	Allegheny,	1873
Asdale, W. J.	Pittsburg,	Allegheny,	1868
Ash, H. St. Clair	Philadelphia,	Philadelphia,	1862
Ashhurst, Sam'l	"	"	1876
Ashmead, William	Germantown,	"	1863
Atkinson, William B.	Philadelphia,	"	1862
Atlee, John L.	Lancaster,	Lancaster,	1868
*Atlee, Washington L.	Philadelphia,	Philadelphia,	1862
*Bache, Franklin	"	"	1862
Bacon, Daniel	Wellsboro',	Tioga,	1872
Bacon, M. L.	"	"	1879
Bailey, Wm. D.	Dillsburg,	York,	1873
Baker, Washington H.	Philadelphia,	Philadelphia,	1879
Baldwin, L. K.	"	"	1871

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NAMES	POST-OFFICE.	COUNTY.	DATE OF MEM'SHIP.
Balmer, A. F.	Brookville,	Jefferson,	1879
*Barber, John	Sharon,	Mercer,	1878
Barr, D. M.	Philadelphia,	Philadelphia,	1875
Barr, G. W.	Titusville,	Crawford,	1867
Barr, Robert	Indiana,	Indiana,	1867
Bartleson, S. P.	Clifton Heights,	Delaware,	1879
Barton, J. M.	Philadelphia,	Philadelphia,	1878
Batten, John M.	Pittsburg,	Allegheny,	1876
Baxter, Henry F.	Philadelphia,	Philadelphia,	1876
Bean, Geo. W.	Bainbridge,	Lancaster,	1878
Beane, W. H.	Middletown,	Dauphin,	1879
Beaver, Daniel B. D.	Reading,	Berks,	1873
Beaver, D. R.	Conshohocken,	Montgomery,	1875
Beck, J. N.	Sligo,	Clarion,	1877
*Beesley, Theophilus E.	Philadelphia,	Philadelphia,	1863
*Bell, John	"	"	1862
Bell, S. D.	Millerstown,	Butler,	1876
Benham, Silas N.	Pittsburg,	Allegheny,	1866
*Bennett, Geo. C.	Erie,	Erie,	1868
Benton, S. H.	Oil City,	Venango,	1876
Berntheizel, G. W.	Columbia,	Lancaster,	1877
Bertolet, Edwin B.	Oley,	Berks,	1879
Best, David	Meadville,	Crawford,	1868
*Biddle, Jno. B	Philadelphia,	Philadelphia,	1876
Biddle, J. C.	Shenandoah,	Schuylkill,	1878
Birch, T. J.	Port Carbon,	Schuylkill,	1879
Birdsall, Samuel	Susquehanna De't,	Susquehanna,	1869
Bishop, H. M.	Sharon,	Mercer,	1880
Bittinger, J. H.	Hanover,	York,	1880
Blachley, O. L.	Sparta,	Washington,	1879
Blachly, S. L.	"	"	1868
Black, H. M.	Strasburg,	Lancaster,	1880
Blackwood, Wm.	Lancaster,	"	1877
Blackwood, W. R. D.	Philadelphia,	Philadelphia,	1875
Blair, A. R.	York,	York,	1879
Blair, J. M.	Fleming,	Centre,	1878
Blakeslee, W. R.	Harford,	Susquehanna,	1876
Bland, D. W.	Pottsville,	Schuylkill,	1870
Bloom, H. C.	Martinsburg,	Blair,	1879
Boal, G. Y.	Baden,	Beaver,	1876
Boker, Charles S.	Philadelphia,	Philadelphia,	1865

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NAMES.	POST-OFFICE.	COUNTY.	DATE OF MEM'SHIP.
*Bolles, Lucius S.	Philadelphia,	Philadelphia,	1868
Bonebreak, D. W.	Martinsburg,	Blair,	1866
Bonsteel, A. S.	Erie,	Erie,	1878
Bordner, H. H.	McClure City,	Snyder,	1880
Bowman, J. D.	Harrisburg,	Dauphin,	1876
Bowman, J. F.	Millersburg,	"	1878
Boyles, R. M.	Reynoldsville,	Jefferson,	1878
Bradford, T. Hewson	Philadelphia,	Philadelphia,	1880
Bradley, Chas.	Norristown,	Montgomery,	1876
*Bradley, Melissa A.	Wilkesbarre,	Luzerne,	1877
Brady, S. H.	Lost Creek,	Schuylkill,	1880
Brallier, E.	Cherrytree,	Indiana,	1876
Brandes, C.	Erie,	Erie,	1869
Brandt, E. B.	Mechanicsburg,	Cumberland,	1867
Brehm, Samuel H.	Newville,	"	1873
Brehman, G. E.	Altoona,	Blair,	1878
Breinig, P. B.	Bethlehem,	Northampton,	1874
Brendle, Geo. F.	Mahanoy City,	Schuylkill,	1874
Brooke, John B.	Reading,	Berks,	1877
Brown, Geo. W.	Port Carbon,	Schuylkill,	1867
Brown, Jas. M.	McVeytown,	Mifflin,	1880
*Brown, Robert	Greensburg,	Westmoreland,	1864
Brown, R. B.	Summerville,	Jefferson,	1878
Bruce, Geo. D.	Pittsburg,	Allegheny,	1870
Bruen, Edw. T.	Philadelphia,	Philadelphia,	1879
Brumbaugh, A. B.	Huntingdon,	Huntingdon,	1873
Brundage, A. T.	Factoryville,	Wyoming,	1873
Bruner, Daniel J.	Columbia,	Lancaster,	1873
Buck, Frederick J.	Philadelphia,	Philadelphia,	1872
Buck, W. Penn	"	"	1880
Buckby, Wilson	"	"	1875
Bulkeley, J. E.	Wilkesbarre,	Luzerne,	1871
Burchfield, J. P.	Clearfield,	Clearfield,	1874
Burns, Robert	Frankford,	Philadelphia,	1863
Burpee, David	Philadelphia,	"	1876
Burr, Chas.	Scranton,	Lackawanna,	1875
Bushong, Israel	New Holland,	Lancaster,	1875
Buzzard, John	Bangor,	Northampton,	1880
Byers, John E.	Butler,	Butler,	1880
Calvin, D. M.	Meadville,	Crawford,	1868
Cambridge, C. H.	Bellefonte,	Centre,	1880

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NAMES.	POST-OFFICE.	COUNTY.	DATE OF MEM'SHIP.
Carpenter, Henry	Lancaster,	Lancaster,	1865
Carpenter, John T.	Pottsville,	Schuylkill,	1866
Carr, A. P.	St. Clair,	"	1877
*Carson, Joseph	Philadelphia,	Philadelphia,	1862
Case, A. G.	Pittsburg,	Allegheny,	1878
Chesrown, A. V.	"	"	1873
Chestnut, J. H. W.	Philadelphia,	Philadelphia,	1876
Chrisman, R. S.	Pottsville,	Schuylkill,	1875
Christie, J. H.	Allegheny,	Allegheny,	1880
Christie, L. H.	Franklin,	Venango,	1880
Christy, J. C.	Pittsburg,	Allegheny,	1878
Christy, J. L.	Conoquonessing,	Butler,	1880
*Christy, R. W.	Hollidaysburg,	Blair,	1862
Christy, R. W.	Sabbath Rest,	"	1880
Chritzman, Henry G.	Welch Run,	Franklin,	1879
Cisna, W. R.	Ickesburg,	Perry,	1868
Clagett, L. S.	Blairsville,	Indiana,	1878
Clark, A. T.	Greenfield,	Mercer,	1871
Clark, L. S.	Philadelphia,	Philadelphia,	1876
*Clark, Matthew H.	Washington,	Washington,	1878
Clark, Wm.	Whitestown,	Butler,	1879
Clarke, Rowan	Bellwood,	Blair,	1864
Claudy, J. C.	Newville,	Cumberland,	1869
Cleaver, Israel	Reading,	Berks,	1873
Cleemann, Richard A.	Philadelphia,	Philadelphia,	1879
Closson, C. H.	Altoona,	Blair,	1879
Coates, B. H.	Philadelphia,	Philadelphia,	1864
Coblentz, Joseph	Reading,	Berks,	1872
Cohen, J. Solis	Philadelphia,	Philadelphia,	1876
Cole, W. W.	Allegheny,	Allegheny,	1878
Coleman, W. C.	Latrobe,	Westmoreland,	1875
Compton, Wm.	Lancaster,	Lancaster,	1868
*Condie, D. Francis	Morton Station,	Delaware,	1862
*Conklin, B. F.	Fayette City,	Fayette,	1872
Cook, W. J.	Freeport,	Armstrong,	1878
Coover, D. H.	Harrisburg,	Dauphin,	1875
Coover, Eli H.	"	"	1876
Corson, E. M.	Norristown,	Montgomery,	1876
Corson, Hiram	Conshohocken,	Montgomery,	1862
Corson, Wm.	Norristown,	"	1870
Corss, Frederick	Kingston,	Luzerne,	1869

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NAMES.	POST-OFFICE.	COUNTY.	DATE OF MEM'SHIP.
Cotton John C.	Meadville,	Crawford,	1869
Cowan, Frank	Greensburg,	Westmoreland,	1873
Cox, Andrew P.	Big Run,	Jefferson,	1880
Craig, Alex.	Columbia,	Lancaster,	1869
Craig, Stephen A.	Freedom,	Beaver,	1879
Crandall, G. D.	Blossburg,	Tioga,	1877
Crawford, J. B.	Wilkesbarre,	Luzerne,	1867
Crawford, J. L.	Saltsburgh,	Indiana,	1878
*Crawford, J. S.	Williamsport,	Lycoming,	1864
Crawford, Robert	Cooperstown,	Venango,	1868
Cressler, John M.	Mountain Top,	"	1876
Cresswell, John	New Bethlehem,	Clarion,	1875
Cristler, J. H.	Stoneboro',	Mercer,	1875
Criswell, J. T.	Camp Hill,	Cumberland,	1879
Cruice, Robert B.	Philadelphia,	Philadelphia,	1879
Cunningham, D.	Wurtemberg,	Lawrence,	1876
Curtis, Levi	Philadelphia,	Philadelphia,	1862
Curwen, Jno.	Harrisburg,	Dauphin,	1866
Dale, J. Y.	Lemont,	Centre,	1877
Dale, Wm. W.	Carlisle,	Cumberland,	1868
Daly, Wm. H.	Pittsburg,	Allegheny,	1871
Darling, Lewis, Jr.	Lawrenceville,	Tioga,	1875
Davis, F. F.	South Oil City,	Venango,	1870
Davis, Miles L.	Rohrerstown,	Lancaster,	1874
Davis, R.	Wilkesbarre,	Luzerne,	1874
Davis, Samuel T.	Lancaster,	Lancaster,	1869
Day, Alfred	Mechanicsburg,	Cumberland,	1872
Dayton, S. W.	Great Bend,	Susquehanna,	1871
*De LaCossett, H.	Greenville,	Mercer,	1871
*Dennis, W. F.	Wilkesbarre,	Luzerne,	1866
Detwiler, B. H.	Williamsport,	Lycoming,	1865
Devinney, S. C.	Williamstown,	Dauphin,	1877
Dickson, J. S.	Pittsburg,	Allegheny,	1878
Dickson, Jno.	"	"	1867
*Dock, George	Harrisburg,	Dauphin,	1868
Donaldson, J. B.	Canonsburg,	Westmoreland,	1877
Dorworth, E S.	Bellefonte,	Centre,	1880
Drake, H. H.	Norristown,	Montgomery,	1879
Drysdale, Thomas M.	Philadelphia,	Philadelphia,	1864
Duhring, Louis A.	"	"	1877
Duncan, Jos. L.	Pittsburg,	Allegheny,	1869

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NAMES.	POST-OFFICE.	COUNTY.	DATE OF MEM'SHIP.
Duncan, W. S.	Brownsville,	Fayette,	1869
Dundor, A. B.	Reading,	Berks,	1872
Dunglison, Richard J.	Philadelphia,	Philadelphia,	1867
Dunigan, M. C.	Titusville,	Crawford,	1876
Dunlap, J. Francis	Manheim,	Lancaster,	1876
Dunmire, Geo. B.	Philadelphia,	Philadelphia,	1874
Dunn, J. C.	Pittsburg,	Allegheny,	1875
Dusenbery, C. S.	Le Raysville,	Bradford,	1875
Dwight, M. B.	Jersey Shore,	Lycoming,	1876
Easton, Andrew	Allegheny,	Allegheny,	1876
Eby, James B.	Newport,	Perry,	1873
Egbert, T. W.	Oil City,	Venango,	1869
Ehler, J. Aug.	Lancaster,	Lancaster,	1876
Eisenberg, P. Y.	Norristown,	Montgomery,	1874
Eisaman, C. D. B.	Adamsburg,	Westmoreland,	1875
Elderdice, R. B.	McKnightstown,	Adams,	1877
Ely, Albert E.	Shellsburg,	Bedford,	1878
Emack, F. D.	Frackville,	Schuylkill,	1879
Emmerling, C.	Pittsburg,	Allegheny,	1878
Engelman, David	Easton,	Northampton,	1876
Engelman, J. P.	Cherryville,	"	1876
Eppley, G. W.	Marysville,	Perry,	1880
Erdman, J. Dallas	Macungie,	Lehigh,	1875
Erdman, W. B.	"	"	1865
Eshleman, I. S.	Philadelphia,	Philadelphia,	1872
Evans, Horace Y.	"	"	1871
Evans, Isaac Newton	Hatborough,	Montgomery,	1862
Evans, T. R.	Pittsburg,	Allegheny,	1879
Ewing, J. B.	Uniontown,	Fayette,	1878
Ewing, R. B.	West Grove,	Chester,	1879
Fay, John	Altoona,	Blair,	1870
Feicht, Benjamin	Economy,	Beaver,	1868
Fenton, Thos. H.	Philadelphia,	Philadelphia,	1880
Findley, Wm. M.	Altoona,	Blair,	1870
*Fish, A. H.	Philadelphia,	Philadelphia,	1862
Fishburne, J. H.	Lock Haven,	Clinton,	1880
Fisk, A. J.	Tioga,	Tioga,	1878
Fitzgerald, J. M.	Lamartine,	Clarion,	1875
Fleming, Andrew	Pittsburg,	Allegheny,	1878
Floyd, John B.	Belleville,	Mifflin,	1880
*Foerstige, Chas.	Rochester,	Beaver,	1871

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NAMES.	POST-OFFICE.	COUNTY.	DATE OF MEM'SHIP.
Foster, Wm.	St. Petersburg,	Clarion,	1880
Foster, W. S.	Pittsburg,	Allegheny,	1868
Foulke, Joseph	Buckingham,	Bucks,	1864
Foust, J. W.	Reynoldsville,	Jefferson,	1880
French, Morris Stroud	Philadelphia,	Philadelphia,	1880
Frey, Levi	Glen Rock,	York,	1879
Frické, Albert	Philadelphia,	Philadelphia,	1862
Frick, Wm. S.	"	"	1873
Fugate, S.	Port Matilda,	Centre,	1880
Fullmer, J. S.	Milton,	Northumberland,	1879
Fulton, T. H.	Sandy Lake,	Mercer,	1874
Fulton, James	New London	Chester,	1875
Fussell, Edwin	Media,	Delaware,	1876
Fussell, Linnæus	"	"	1875
Gaddis, L. S.	Uniontown,	Fayette,	1878
*Galbraith, James	Landisburg,	Perry,	1863
Gallaher, T. J.	Pittsburg,	Allegheny,	1865
Gardner, B. F.	Bloomsburg,	Columbia,	1880
*Gebhard, L. P.	Philadelphia,	Philadelphia,	1863
Geibner, E. X.	Sandy Lake,	Mercer,	1872
Gemmill, J. M., Jr.	Tyrone,	Blair,	1874
Gerhardt, J. Z	Harrisburg,	Dauphin,	1873
Gibbs, L. H.	Scranton,	Lackawanna,	1880
*Gilbert, David	Philadelphia,	Philadelphia,	1862
Gillaud, J. C.	Greencastle,	Franklin,	1880
Gilliford, R. H.	Allegheny,	Allegheny,	1880
Gillett, Buckland	Franklin,	Venango,	1868
Girvin, Robt. M.	Philadelphia,	Philadelphia,	1880
Glenn, J. P.	Snow Shoe,	Centre,	1876
Goodell, Wm.	Philadelphia,	Philadelphia,	1870
Gorgas, S. R.	Harrisburg,	Dauphin,	1877
Graham, Sam'l	Butler,	Butler,	1875
Gray, T. H.	Erie,	Erie,	1878
*Greenleaf, P. L.	Thompsontown,	Juniata,	1876
Green, Geo D.	Linwood,	Delaware,	1879
Green, Traill	Easton,	Northampton,	1863
Griffith, D. S.	Bedford,	Bedford,	1877
Griswold, E.	Sharon,	Mercer,	1873
Gross, Samuel D.	Philadelphia,	Philadelphia,	1862
Gross, Samuel W.	"	"	1877
Grove, George	Springfield,	Cumberland,	1868

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NAMES.	POST-OFFICE.	COUNTY.	DATE OF MEM'SHIP.
Gulden, B. C.	Minersville,	Schuylkill,	1876
Guss, Isaac	Cassville,	Huntingdon,	1880
Halbauer, T. K.	St. Clair,	Schuylkill,	1876
Halberstadt, A. H.	Pottsville,	"	1866
Hall, A. D.	Philadelphia,	Philadelphia,	1876
Hall, L. Brewer	"	"	1879
Halsey, Calvin C.	Montrose,	Susquehanna,	1862
Hamilton, George	Philadelphia,	Philadelphia,	1862
Hamilton, Hugh	Harrisburg,	Dauphin,	1874
Harder, C. S.	Rohrsburg,	Columbia,	1876
Harris, Geo. F.	Bellefonte,	Centre,	1878
Harshberger, A.	Milroy,	Mifflin,	1874
Harshberger, A. S.	"	"	1875
Hartman, Paul A.	Harrisburg,	Dauphin,	1875
Harvey, Ellwood	Chester,	Delaware,	1862
Hassler, Jas. P.	Cochranton,	Crawford,	1871
Hatfield, Nathan	Philadelphia,	Philadelphia,	1869
Hatfield, N. L.	"	"	1862
Hay, Jacob	York,	York,	1877
Hay, John W.	Harrisburg,	Dauphin,	1873
Hay, Thomas	Philadelphia,	Philadelphia,	1866
Hayes, D. D.	Shippensburg,	Cumberland,	1873
Hayes, D. S.	Hollidaysburg,	Blair,	1871
Hayes, Thos. R.	Bellefonte,	Centre,	1877
Hayes, Robert C.	Shippensburg,	Cumberland,	1869
Hays, D. M.	Carlisle,	Cumberland,	1880
Hearn, Joseph	Philadelphia,	Philadelphia,	1880
Heilman, Salem	Sharon,	Mercer,	1874
*Helffenstein, Abm.	Philadelphia,	Philadelphia,	1862
Hellyer, Edwin	"	"	1866
Helsby, Thos. H.	Williamsport,	Lycoming,	1869
Hengst, D. A.	Pittsburg,	Allegheny,	1878
Henry, Frederick P.	Philadelphia,	Philadelphia,	1879
Herbst, Wm. B.	Trexlertown,	Lehigh,	1866
Herman, A. J.	Carlisle,	Cumberland,	1872
Hermany, P.	Mahanoy City,	Schuylkill,	1874
Herr, Ambrose J.	Lancaster,	Lancaster,	1876
Herr, Martin L.	"	"	1872
Herron, Wm. M.	Allegheny,	Allegheny,	1876
Hertz, J. K.	Litiz,	Lancaster,	1875
Hewson, Addinell	Philadelphia,	Philadelphia,	1880

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NAMES.	POST-OFFICE.	COUNTY.	DATE OF MEM'SHIP.
Hibler, Augustus	Bellefonte,	Centre,	1876
Hickman, Napoleon	Philadelphia,	Philadelphia,	1879
Hilliard, G. W.	Richardsville,	Jefferson,	1880
Hillier, J. W.	West Middlesex,	Mercer,	1878
Hinkle, A. G. B.	Philadelphia,	Philadelphia,	1865
Hodge, H. Lenox	"	"	1870
*Hoffman, W. Atlee	"	"	1874
Holahan, John F.	York,	York,	1873
Holt, Jacob F.	Philadelphia,	Philadelphia,	1876
Homet, Volney	Camptown,	Bradford,	1870
Hoover, N. M.	North Hope,	Butler,	1876
Hopkins, Ephraim	Marshalton,	Chester,	1876
Horner, Caleb W.	Philadelphia,	Philadelphia,	1879
Horner, Charles	Gettysburg,	Adams,	1875
Horner, E. H.	Turbotville,	Northumberl'd,	1877
Horner, Robert	Gettysburg,	Adams,	1876
Horton, Geo. F.	Terrytown,	Bradford,	1862
Hosack, J. P.	Mercer,	Mercer,	1870
Hoskins, Percy C.	Milltown,	Chester,	1876
Hotchkiss, S. B.	Edinborough,	Erie,	1878
Houpt, Fred. L.	Sunbury,	Northumberland,	1877
Houston, J. Willis	Collamer,	Chester,	1880
Howland, C. A.	Shippensburg,	Cumberland,	1877
*Huckel, Jacob	Philadelphia,	Philadelphia,	1863
Hudson, M. F.	Belleville,	Mifflin,	1876
Huffman, D. C.	McKeesport,	Allegheny,	1880
Hughes, J. W.	Blairsville,	Indiana,	1869
Hull, A. P.	Montgomery Sta.,	Lycoming,	1877
Hull, Thomas R.	Milton,	Northumberl'd,	1877
Hull, W. R.	Williamsport,	Luzerne,	1864
Humphreys, G. L.	Irwin,	Westmoreland,	1877
Humphrey, Wm. T.	Osceola,	Tioga,	1869
Hunter, Chas. T.	Philadelphia,	Philadelphia,	1878
Huselton, W. S.	Allegheny City,	Allegheny,	1870
Hutton, J. C.	Harrisburg,	Dauphin,	1873
*Irish, Franklin	Pittsburg,	Allegheny,	1866
Irwin, Crawford	Hollidaysburg,	Blair,	1867
*Jackson, J. E.	Fallston,	Beaver,	1871
Jackson, T. M.	Atlee,	Mercer,	1878
Jacob, Harry,	Altoona,	Blair,	1880
Jacobs, G. L.	Harrisburg,	Dauphin,	1877

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NAMES.	POST-OFFICE.	COUNTY.	DATE OF MEM'SHIP.
Jefferies, D. W.	Chester,	Delaware,	1876
*Jewell, Wilson	Philadelphia,	Philadelphia,	1863
*Johnson, W. N.	Germantown,	"	1862
Jones, H. Isaac	Hyde Park,	Lackawanna,	1877
Kamerer, J. W. B.	Greensburg,	Westmoreland,	1876
Keiffer, S. B.	Carlisle,	Cumberland,	1871
Keller, D. C.	Union Deposit,	Dauphin,	1869
Keller, H. D.	"	"	1871
Kennedy, Alfred L.	Philadelphia,	Philadelphia,	1862
Kerlin, Isaac N.	Media,	Delaware,	1869
Kerr, James	Pittsburg,	Allegheny,	1880
Kerr, James W.	York,	York,	1879
Keyser, Peter D.	Philadelphia,	Philadelphia,	1874
Kibler, C. B.	Corry,	Erie,	1876
King, C. B.	Allegheny,	Allegheny,	1876
*King, James	Pittsburg,	"	1865
King, J. C.	Reynoldsville,	Jefferson,	1880
Kirkbride, Thos. S.	Philadelphia,	Philadelphia,	1876
Kistler, E. H.	Tamaqua,	Schuylkill,	1872
Kline, L. B.	Catawissa,	Columbia,	1875
Klingensmith, I. P.	Derry Station,	Westmoreland,	1876
*Klotz, Charles	Lamartine,	Clarion,	1870
Knapp, C. B.	Stevensville,	Bradford,	1876
Knight, Samuel R.	Philadelphia,	Philadelphia,	1876
*Knight, William L.	"	"	1862
Knipe, J. O.	Norristown,	Montgomery,	1879
Knox, Wm. F.	McKeesport,	Allegheny,	1867
Koser, S. S.	Tremont,	Schuylkill,	1878
Kratz, Harvey	Hilltown,	Berks,	1879
Krise, C. W.	Carlisle,	Cumberland,	1877
Kuhn, L. DeBarth	Reading,	Berks,	1871
Lachenon, H. D.	Easton,	Northampton,	1874
*Lamb, John F.	Frankford,	Philadelphia,	1862
Lane, Samuel G.	Chambersburg,	Franklin,	1870
Langfitt, W. J.	Allegheny City,	Allegheny,	1864
Larimer, W. T.	West Lebanon,	Indiana,	1880
Laubach, Stephen	Easton,	Northampton,	1876
Leaman, Brainard	Leaman Place,	Lancaster,	1871
Leaman, Henry	Philadelphia,	Philadelphia,	1870
Lee, Benjamin	"	"	1867
Leet, F. H.	Greenville,	Mercer,	1876

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NAMES.	POST-OFFICE.	COUNTY.	DATE OF MEM'SHIP.
Legge, J. H.	Pittsburg,	Allegheny,	1872
Leidy, Joseph	Philadelphia,	Philadelphia,	1862
Leidy, Philip	"	"	1877
Le Moyne, F.	Pittsburg,	Allegheny,	1878
Lenher, L. H.	Harrisburg,	Dauphin,	1877
Lenker, C.	Buckhorn,	Columbia,	1880
Leslie, J. D.	Susquehanna Dep.,	Susquehanna,	1879
Levan, J. R.	Philadelphia,	Philadelphia,	1880
Levis, Richard J.	"	"	1873
Lineaweaver, John K.	Columbia,	Lancaster,	1875
*Linnenbrink, J.	Rochester,	Beaver,	1867
Linn, Geo. A.	Monongahela City,	Washington,	1875
Linville, Mont.	New Castle,	Lawrence,	1876
Little, Joseph H.	Washington,	Washington,	1869
Littlefield, J. Dana	Titusville,	Clearfield,	1880
Livingston, J. B.	West Middlesex,	Mercer,	1869
Livingston, Thos. M.	Mountville,	Lancaster,	1875
Longsdorf, W. H.	Dickinson,	Cumberland,	1871
Longstreth, M. Fisher	Darby,	Delaware,	1876
Loop, D. D.	North-East,	Erie,	1868
Lusk, Jos. S.	Harmony,	Butler,	1878
Lyon, Edward	Williamsport,	Lycoming,	1871
Lyon, Thomas	"	"	1872
Lyons, Wm.	Philadelphia,	Philadelphia,	1872
Lytle, Geo. E.	Monongahela City,	Washington,	1880
McBride, C. F.	Baldwin,	Butler,	1878
McCaa, D. J.	Ephrata,	Lancaster,	1880
McCann, James	Pittsburg,	Allegheny,	1867
McCarrell, D. M.	Hickory,	Washington,	1878
McCarroll, Jas.	Allegheny,	Allegheny,	1878
McClelland, Cochran	Philadelphia,	Philadelphia,	1877
McConnell, H. S.	New Brighton,	Beaver,	1878
McConoughy, D. W.	Latrobe,	Westmoreland,	1867
McConoughy, Jas.	Mt. Pleasant,	"	1876
McConoughy, Robert	Scott Dale,	Westmoreland,	1878
McCoy, Gilbert R.	Doylestown,	Bucks,	1869
McDonald, Nesbit	Pittsburg,	Allegheny,	1869
McElroy, Jos.	Hickory,	Washington,	1876
McGowan, H.	Harrisburg,	Dauphin,	1876
McKean, J. A.	Washington,	Washington,	1878
McKennan, Thos.	"	"	1868

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NAMES.	POST-OFFICE.	COUNTY.	DATE OF MEM'SHIP.
McKennon, M. J.	York,	York,	1876
McKenzie, Wm.	Conshohocken,	Montgomery,	1874
McKibben, D. J.	Ashland,	Schuylkill,	1876
McKinney, D., Jr.	New Brighton,	Beaver,	1868
McMichael, J.	Barnhart's Mill,	Butler,	1875
McMullen, James	Mechanicsburg,	Indiana,	1867
McMullen, Thomas	Greenville,	"	1865
McMurray, A. S.	Philadelphia,	Philadelphia,	1864
McRean, Thos. A.	"	"	1874
McReynolds, H. W.	Bloomsburg,	Columbia,	1862
McVicker, J. P.	Williamsport,	Lycoming,	1870
Mabon, Thos.	Allegheny,	Allegheny,	1869
*Maggini, J. C.	Port Perry,	"	1870
Magill, Wm. H.	Danville,	Montour,	1870
Mahan, James T.	Newton Hamilton,	Mifflin,	1878
Maine, Geo. D.	Mainesburg,	Tioga,	1874
Mann, Chas. H.	Bridgeport,	Montgomery,	1876
March, Daniel	Pittsburg,	Allegheny,	1879
Marks, Jno. J.	Lewistown,	Mercer,	1877
Marquis, David S.	Rochester,	Beaver,	1863
*Marr, Charles	Scranton,	Luzerne,	1862
Martin, E. G.	Allentown,	Lehigh,	1866
Martin, H. G.	Cherry Flats,	Tioga,	1880
Masten, James	Westfield,	Tioga,	1872
Mathews, Franklin	Temple,	Berks,	1875
Matson, C. M.	Brookville,	Jefferson,	1878
Mausteller, J. D.	Danville,	Montour,	1873
Maxwell, Jno. K.	Worthington,	Armstrong,	1880
*Mayburry, William	Philadelphia,	Philadelphia,	1862
Mayer, E. R.	Wilkesbarre,	Luzerne,	1866
Mayer, Isaac H.	Willowstreet,	Lancaster,	1877
Mays, T. J.	Upper Lehigh,	Luzerne,	1877
Meals, N. M.	Callensburg,	Clarion,	1878
Meals, S. D.	"	"	1872
Means, Wm. A.	Luthersburg,	Clearfield,	1873
Mehard, J. W.	Mercer,	Mercer,	1878
Mehard, S. S.	"	"	1871
*Meigs, Jas. Aitken	Philadelphia,	Philadelphia,	1870
Meisenhelder, Ed. W.	York,	York,	1877
Melhorn, E.	New Chester,	Adams,	1879
Merklein, C. H.	Chambersburg,	Franklin,	1879

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NAMES.	POST-OFFICE.	COUNTY.	DATE OF MEM'SHIP.
Meschter, G. K.	Centre Point,	Franklin,	1876
Meyer, L. G.	Mercer,	Mercer,	1875
Miller, A. M.	Bird-in-Hand,	Lancaster,	1876
Miller, D. P.	Huntingdon,	Huntingdon,	1873
Miller, E. S.	Altoona,	Blair,	1880
*Miller, John A.	Ligonier,	Westmoreland,	1868
Miller, O. L.	Allegheny,	Allegheny,	1867
Miller, S. G.	Everett,	Bedford,	1880
Miller, W. N.	Allegheny,	Allegheny,	1869
Milligan, J. D.	Madison,	Westmoreland,	1878
Milliken, D. B.	Landisburg,	Perry,	1864
Mills, Chas. K.	Philadelphia,	Philadelphia,	1876
Mills, Edward	Ulster,	Bradford,	1869
Milner, R. H.	Chester,	Delaware,	1879
Mingle, D. H.	Millheim,	Centre,	1880
*Mitchell, Geo. V.	Kishacoquillas,	Mifflin,	1876
Mixsell, Jos.	Easton,	Northampton,	1874
Montgomery, John	Chambersburg,	Franklin,	1871
Moody, George O.	Titusville,	Crawford,	1869
Moody, H. Mont.	Bradford,	Bradford,	1869
*Moore, William	Womelsdorf,	Berks,	1862
Morris, J. Cheston	Philadelphia,	Philadelphia,	1870
Morrison, M. P.	Monongahela City,	Washington,	1871
Morrow, J. J.	Sheakleyville,	Mercer,	1876
Moss, Geo. W.	Kirby,	Greene,	1879
Mosser, E. N.	Mechanicsburg,	Cumberland,	1873
Mosser, M. B.	"	"	1870
Mossman, B. E.	Greenville,	Mercer,	1870
Mowry, R. B.	Allegheny,	Allegheny,	1865
Muhlenberg, W. F.	Reading,	Berks,	1875
Mumma, E. W.	Bendersville,	Adams,	1879
Murdock, J. B.	Pittsburg,	Allegheny,	1876
Murphy, Joseph A.	Wilkesbarre,	Luzerne,	1874
Musser, F. M.	Witmer,	Lancaster,	1874
Musser, J. Henry	Lampeter,	"	1876
Musser, P. T.	Aaronsburg,	Centre,	1878
Nancrede, Chas. B.	Philadelphia,	Philadelphia,	1879
Nash, J. D.	"	"	1876
Nebinger, Andrew	"	"	1862
Neely, Jas. W.	Pittsburg,	Allegheny,	1879
Nelan, J. R.	Brownsville,	Fayette,	1878

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NAMES.	POST-OFFICE.	COUNTY.	DATE OF MEM'SHIP.
Newcomet, H. W.	Philadelphia,	Philadelphia,	1874
Newton, D. N.	Towanda,	Bradford,	1874
Neyman, A. M.	Butler,	Butler,	1867
Noble, Wm. P.	Upton,	Franklin,	1879
Nolan, Edw. J.	Philadelphia,	Philadelphia,	1879
Nutt, Geo. D.	Williamsport,	Lycoming,	1878
*Oakes, T. Fletcher	Titusville,	Crawford,	1869
Offutt, L.	Penn Station,	Westmoreland,	1880
Ogleby, James	Danville,	Montour,	1875
O'Hara, Michael	Philadelphia,	Philadelphia,	1874
*Oliver, Joseph L.	Coatesville,	Chester,	1864
O'Neal, J. W. C.	Gettysburg,	Adams,	1876
O'Neil, John J.	Philadelphia,	Philadelphia,	1874
Orris, H. O.	Newport,	Perry,	1873
Orth, H. L.	Harrisburg,	Dauphin,	1868
Ott, Isaac	Easton,	Northampton,	1871
Owens, W. R.	Ashland,	Schuylkill,	1875
Packard, John H.	Philadelphia,	Philadelphia,	1877
Packer, Nelson	Wellsboro',	Tioga,	1870
Palmer, Chas. T.	Pottsville,	Schuylkill,	1878
Pancoast, Joseph	Philadelphia,	Philadelphia,	1876
Pancoast, Wm. H.	"	"	1867
Parke, A. G. B.	Gap,	Lancaster,	1877
Parish, Wm. H.	Philadelphia,	Philadelphia,	1879
Partenheimer, John R.	"	"	1879
Peck, C. E.	Millerstown,	Butler,	1877
Peebles, H. H.	New Castle,	Lawrence,	1876
Pennepacker, H.	Harford,	Susquehanna,	1876
Pepper, William	Philadelphia,	Philadelphia,	1875
Perkins, E. Stanley	"	"	1874
Pflueger, C. F.	Seidersville,	Northampton,	1874
Phelps, W. C.	Philadelphia,	Philadelphia,	1869
Phillips, E.	New Haven,	Fayette,	1880
Phillips, Wm. L.	Lancaster,	Lancaster,	1878
Pillow, R. H.	Butler,	Butler,	1878
Pollock, A. M.	Pittsburg,	Allegheny,	1871
Porter, Wm. G.	Philadelphia,	Philadelphia,	1878
Prall, C. R.	"	"	1876
Price, Jacob	West Chester,	Chester,	1864
Pursell, Isaac	Danville,	Montour,	1874
Quail, C. E.	Auburn,	Schuylkill,	1877

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NAMES.	POST-OFFICE.	COUNTY.	DATE OF MEM'SHIP.
Quick, R. A.	Sugar Run,	Bradford,	1875
Radebaugh, J. M.	Gettysburg,	Adams,	1880
Rahauser, G. G.	Pittsburg,	Allegheny,	1876
Rahter, C. A.	Harrisburg,	Dauphin,	1873
Ramsay, Robt. W.	St. Thomas,	Franklin,	1877
Randenbash, A. S.	Adamstown,	Berks,	1874
Rankin, D. N.	Allegheny,	Allegheny,	1867
Read, F. B.	Osceola Mills,	Clearfield,	1880
Reagan, G. L.	Shenandoah,	Schuylkill,	1870
Reber, W. M.	Bloomsburg,	Columbia,	1876
Redick, S. T.	Allegheny City,	Allegheny,	1875
Reed, Joseph A.	Dixmont,	Allegheny,	1877
Reichard, C. C.	Brownsville,	Fayette,	1878
Reichard, P. L.	Allentown,	Lehigh,	1868
Reid, J. K.	Conshohocken,	Montgomery,	1867
Reilly, G. W.	Harrisburg,	Dauphin,	1876
Reily, Wm. F.	Carlisle,	Cumberland,	1880
Reiter, W. C.	Pittsburg,	Allegheny,	1869
*Renninger, A. C.	Harrisburg,	Dauphin,	1873
Rentschler, H. D.	Ringtown,	Schuylkill,	1878
Rice, Wm.	Rome,	Bradford,	1875
Richardson, Jos. G.	Philadelphia,	Philadelphia,	1877
Richter, A.	Williamsport,	Lycoming,	1872
Rickards, W. M. L.	Philadelphia,	Philadelphia,	1875
Riggs, Elliott S.	Allegheny,	Allegheny,	1876
Righter, Washington	Philadelphia,	Philadelphia,	1879
Risley, S. D.	"	"	1878
Ritchey, John A.	Oil City,	Venango,	1874
Robbins, E. S.	Covington,	Tioga,	1880
Roberts, John B.	Philadelphia,	Philadelphia,	1878
*Robinson, M. F.	Newville,	Cumberland,	1868
Robins, O. M.	Shamokin,	Northampton,	1875
Roebuck, P. J.	Litiz,	Lancaster,	1866
Rogers, R. E.	Philadelphia,	Philadelphia,	1870
Roland, Oliver	Lancaster,	Lancaster,	1878
Roland, Wm. S.	York,	York,	1876
Roller, W. C.	Hollidaysburg,	Blair,	1869
Roop, J. W.	New Cumberland,	Cumberland,	1877
Ross, James	Clarion,	Clarion,	1867
Ross, John D.	Williamsburg,	Blair,	1863
Ross, J. Frank	Clarion,	Clarion,	1870

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NAMES.	POST-OFFICE.	COUNTY.	DATE OF MEM'SHIP.
Ross, S. M.	Altoona,	Blair,	1864
Rothrock, A.	McVeytown,	Mifflin,	1877
Rothrock, R.	Middleburg,	Snyder,	1880
*Rowland, Francis P.	Media,	Delaware,	1874
Rupp, H.	Hummelstown,	Dauphin,	1877
*Rutherford, W. W.	Harrisburg,	"	1867
Rutledge, S. R.	Blairsville,	Indiana,	1879
Sample, John	Wilkinsburg,	Allegheny,	1866
Sampson, T. W.	Emlenton,	Venango,	1876
Sandt, John	Easton,	Northampton,	1871
Santee, Eugene I.	Philadelphia,	Philadelphia,	1874
Sargent, Goram P.	Radnor,	Delaware,	1870
Sarver, William	Allegheny City,	Allegheny,	1869
*Schneck, B. F	Lebanon,	Lebanon,	1863
Schoales, J. D.	Philadelphia,	Philadelphia,	1878
*Scholfield, Edwin	"	"	1864
Schrack, David	Jeffersonville,	Montgomery,	1867
Schrack, John	"	"	1862
Schultz, S. S.	Danville,	Montour,	1867
Scott, Franklin P.	Monongahela,	Washington,	1872
Seabrook, C. C.	Harrisburg,	Dauphin,	1879
Seem, A. A.	Bangor,	Northampton,	1879
Seem, A. K.	Martin's Creek,	"	1870
Seibert, W. H.	Steelton,	Dauphin,	1877
Seip, Amos	Easton,	Northampton,	1863
*Sensenny, A. H.	Chambersburg,	Franklin,	1876
*Sensenny, B. Rush	"	"	1877
Shannon, B. F.	Schuylkill Haven,	Schuylkill,	1875
Shapleigh, E. B.	Philadelphia,	Philadelphia,	1876
Shaw, Thos. W.	Pittsburg,	Allegheny,	1866
Sheaffer, A. H.	Lewistown,	Mifflin,	1876
Shearer, Jas. Y.	Sinking Spring,	Berks,	1868
Shearer, Jas. M.	Dillsburg,	York,	1877
Sheets, J. W.	Selinsgrove,	Snyder,	1877
Sheibly, J. P.	Landisburg,	Perry,	1879
Sheller, Abram	Mount Joy,	Lancaster,	1868
Shelly, A. F.	Philadelphia,	Philadelphia,	1876
Shepler, J. T.	Dunbar,	Fayette,	1880
Sherk, Levi A.	Union Forge,	Lebanon,	1879
Shive, Peter C.	Plainsville,	Luzerne,	1867
Shoemaker, John V.	Philadelphia,	Philadelphia,	1878

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NAMES.	POST-OFFICE.	COUNTY.	DATE OF MEM'SHIP.
Shoemaker, Wm. P.	Edenburg,	Clarion,	1880
Short, R. N.	Mechanicsburg,	Cumberland,	1867
Shrawder, Jno. S.	Ambler,	Montgomery,	1870
Sibbet, R. L.	Carlisle,	Cumberland,	1870
Silliman, J. E.	Erie,	Erie,	1878
Simington, R. S.	Danville,	Montour,	1868
Singer, J. E.	Newport,	Perry,	1866
Skillern, S. R.	Philadelphia,	Philadelphia,	1876
Sloan, Jas. G.	Monongahela City,	Washington,	1879
Slocum, A. M.	Philadelphia,	Philadelphia,	1870
Smaltz, J. Henry	"	"	1862
Smathers, W. J.	Du Bois,	Clearfield,	1880
Smith, Albert H.	Philadelphia,	Philadelphia,	1879
Smith, Amos H.	Paradise,	Lancaster,	1879
Smith, Geo. W.	Hollidaysburg,	Blair,	1866
Smith, Henry H.	Philadelphia,	Philadelphia,	1870
Smith, J. M.	Tyrone,	Blair,	1872
Smith, John K.	Harrisburg,	Dauphin,	1880
Smith, J. R.	Pine Grove Mills,	Centre,	1877
Smith, L. A.	New Milford,	Susquehanna,	1864
Smith, Robert B.	Tioga,	Tioga,	1871
Smith, W. C. J.	Pottsville,	Schuylkill,	1879
*Smyth, F. G.	Philadelphia,	Philadelphia,	1878
Snively, A. J.	Hanover,	York,	1879
Snively, I. N.	Waynesboro,	Franklin,	1873
Snively, Wm.	Pittsburg,	Allegheny,	1878
Snodgrass, Jas. H.	"	"	1869
Snowden, S. G.	Franklin,	Venango,	1869
*Somers, Lewis S.	Philadelphia,	Philadelphia,	1862
Spackman, R. V.	Luthersburg,	Clearfield,	1875
Spangler, B. F.	York,	York,	1877
Spaulding, S. C.	Shenandoah,	Schuylkill,	1876
Spratt, Geo. R.	Coatesville,	Chester,	1877
Stahley, G. D.	Easton,	Northampton,	1876
*Stanton, David	New Brighton,	Beaver,	1867
Stayer, A. D.	Roaring Springs,	Blair,	1876
Stebbins, Sumner	Unionville,	Chester,	1863
Steinmetz, E. G.	Hokendauqua,	Lehigh,	1875
Stetler, John G.	Philadelphia,	Philadelphia,	1868
Stevens, Wm. O.	Avondale,	Chester,	1876
Stevenson, S.	New Bedford,	Lawrence,	1878

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NAMES	POST-OFFICE.	COUNTY.	DATE OF MEM'SHIP.
Stewart, J. L.	Erie,	Erie,	1867
Stewart, Thos.	Carlisle,	Cumberland,	1875
Stewart, W. G.	Newville,	"	1873
Stewart, W. H.	Kittanning,	Armstrong,	1878
Stewart, Wm. S.	Philadelphia,	Philadelphia,	1877
Stiles, Geo..	Conshohocken,	Montgomery,	1876
Stillé, Alfred	Philadelphia,	Philadelphia,	1862
Stoner, Wm. B.	Northumberland,	Northumberland,	1877
Strawbridge, Geo.	Philadelphia,	Philadelphia,	1876
Strawbridge, J. D.	Danville,	Montour,	1871
Strickland, D. H.	Erie,	Erie,	1868
Strickler, A. H.	Waynesboro',	Franklin,	1875
Strickler, M. B.	New Bloomfield,	Perry,	1877
Stubbs, Geo. E.	Philadelphia,	Philadelphia,	1874
Stubbs, J. H.	London Grove,	Chester,	1879
Sturgeon, W. H.	Uniontown,	Fayette,	1876
Suesserott, J. L.	Chambersburg,	Franklin,	1873
Swartz, Joseph	Duncannon,	Perry,	1862
Swayze, Mary Alice	Pottsville,	Schuylkill,	1877
Swigart, J. R.	Bannerville,	Snyder,	1879
Swisher, Thos. J.	Jerseytown,	Columbia,	1871
Taylor, J. Howard	Philadelphia,	Philadelphia,	1879
Taylor, Wm. T.	"	"	1873
Temple, H. T.	New Sheffield,	Beaver,	1878
Thayer, Alvin	Erie,	Erie,	1869
Thomas, Chas. H.	Philadelphia,	Philadelphia,	1879
*Thomas, Isaac	West Chester,	Chester,	1862
Thomas, J. D.	Buchanan,	Allegheny,	1872
Thomas, O. W.	Arndtsville,	Adams,	1880
*Thomas, R. P.	Philadelphia,	Philadelphia,	1865
Thompson, Benjamin	Landenberg,	Chester,	1870
Thompson, C. K.	Wellsboro',	Tioga,	1871
Thompson, L. M.	Mahanoy City,	Schuylkill,	1873
Thompson, Sydney	Spruce Creek,	Huntingdon,	1879
Thompson, W. R.	Washington,	Washington,	1878
Thomson, J. A.	Wrightsville,	York,	1872
Thomson, John C.	Bellwood,	Blair,	1880
Todd, Fred.	Hontzsdale,	Clearfield,	1880
Trabert, J. W.	Reamstown,	Lancaster,	1876
Travers, D. B.	Baldwin,	Dauphin,	1877
Treichler, A. C.	Elizabethtown,	Lancaster,	1871

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NAMES.	POST-OFFICE.	COUNTY.	DATE OF MEM'SHIP.
Treichler, C. Galen	Honeybrook,	Chester,	1879
*Treichler, Jacob F.	McKeansburg,	Schuylkill,	1864
Troth, Samuel N.	Philadelphia,	Philadelphia,	1863
Turnbull, Chas. S.	"	"	1879
Turnbull, Laurence	"	"	1864
*Tutt, Charles P.	"	"	1863
Twitmyre, J. H.	Sharpsville,	Mercer,	1875
Tyson, A. R.	Norristown,	Montgomery,	1879
Tyson, James	Philadelphia,	Philadelphia,	1875
Ulrich, Wm. B.	Chester,	Delaware,	1870
Umberger, J. R.	Dauphin,	Dauphin,	1870
Underwood, Gideon	Pittston,	Luzerne,	1870
Van Kirk, T. R.	McKeesport,	Allegheny,	1870
Van Treis, J. M.	St. Thomas,	Franklin,	1876
Van Valzah, H. B.	Clearfield,	Clearfield,	1876
Van Valzah, T. H.	Lewistown,	Mifflin,	1877
Vanvoorhis, J. S.	Bellevernon,	Fayette,	1869
Varian, Wm.	Titusville,	Crawford,	1870
Vastine, J. H.	Numidia,	Columbia,	1875
Wagenseller, B. F.	Selinsgrove,	Snyder,	1877
Walker, R. L.	Mansfield,	Allegheny,	1870
*Wallace, Edward	Philadelphia,	Philadelphia,	1875
*Wallace, W. M.	Erie,	Erie,	1868
Walter, J. B.	Centrebridge,	Bucks,	1874
Waters, D. C.	Arnot,	Tioga,	1877
Weaver, J. K.	Norristown,	Montgomery,	1875
Weaver, S. J.	Weaverville,	Northampton,	1875
Webb, W. H.	Philadelphia,	Philadelphia,	1875
Webb, W. W.	Wellsboro',	Tioga,	1869
Wehner, Jacob H.	Germantown,	Philadelphia,	1868
Weidman, W. Murray	Reading,	Berks,	1867
Weisman, Geo. T.	Bainbridge,	Lancaster,	1880
Weist, Jno.	Shortline,	York,	1877
Welch, Wm. M.	Philadelphia,	Philadelphia,	1870
Welchans, Geo. R.	Lancaster,	Lancaster,	1879
Wells, J. Ralston	Philadelphia,	Philadelphia,	1869
Welsh, W. S.	Franklin,	Venango,	1872
Wentz, W. J.	New Providence,	Lancaster,	1876
Werner, Andrew J.	Duncannon,	Perry,	1873
Whann, W. Lowrie	Franklin,	Venango,	1870
White, T. H.	Williamsburg,	Blair,	1873

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NAMES.	POST-OFFICE.	COUNTY.	DATE OF MEM'SHIP.
Whiteside, J. E.	Philadelphia,	Philadelphia,	1875
Wilmot, E. F.	Great Bend,	Susquehanna,	1875
*Winans, Isaac	New Brighton,	Beaver,	1862
Wishart, H. S.	Harrisonville,	Fulton,	1879
Witman, Henry O.	Harrisburg,	Dauphin,	1866
Wittig, Charles F.	Philadelphia,	Philadelphia,	1863
Wolfe, Sam'l	Skippackville,	Montgomery,	1876
Wood, C. B.	Monongahela City,	Washington,	1880
Wood, E. A.	Pittsburg,	Allegheny,	1867
Wood, H. C.	Philadelphia,	Philadelphia,	1876
Woodbury, Frank	"	"	1880
Woods, J. F.	Boalsburg,	Centre,	1876
Woods, L. N.	Wheatland,	Mercer,	1878
*Worthington, Wilmer	West Chester,	Chester,	1863
Yarrow, T. J.	Philadelphia,	Philadelphia,	1870
Yost, George P.	Logansville,	York,	1880
Young, Theodore J.	Titusville,	Crawford,	1872
*Zeigenfuss, A. A.	Buck Mountain,	Carbon,	1866
Zeigler, G. Winfield	Carlisle,	Cumberland,	1878
Zeigler, Jacob L.	Mount Joy,	Lancaster,	1865
Zeigler, S. P.	Carlisle,	Cumberland,	1870

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OFFICERS AND MEMBERS OF COUNTY SOCIETIES.

NOTE.—Counties marked thus (?) made no report for 1880.

ADAMS COUNTY.

OFFICERS.

President,	J. W. Pearson,	York Springs.
Vice-Presidents,	J. M. Radebaugh,	Gettysburg.
	J. D. Weddelle,	Middletown.
Recording Secretary,	J. E. Gilbert,	Gettysburg.
Corresponding Secretary,	J. W. C. O'Neal,	"
Treasurer,	E. W. Mumma,	Bendersville.

MEMBERS.

Arndtsville—Lecron, Israel P.
Thomas, O. W.
Bendersville—Howard, A. W.
Mumma, E. W.
Bonneaville—Noel, A.
Bigler P. O.—Weddelle, Jas. D. (Middletown).
Fairfield—Beaver, A. P.
Gettysburg—Gilbert, J. E.
Horner, Chas.
Gettysburg—
Horner, Robert
O'Neal, J. W C.
Radebaugh, J. M.
Littlestown—Seiss, R. S.
McKnightstown—Elderdice, R. B.
New Chester—Melhorn, E.
York Sulphur Springs—Dill, A. B.
Pearson, J. W.

ALLEGHENY COUNTY.

OFFICERS.

President,	(Deceased.)	
Vice-President,	J. B. Murdock,	Pittsburg.
Recording Secretary,	W. H. Daly,	"
Assist. Recording Secretary,	Elliott S. Riggs,	Allegheny.
Corresponding Secretary,	D. A. Hengst,	Pittsburg.
Treasurer,	W. S. Huselton,	Allegheny.

MEMBERS.

Allegheny City—Bigham, Jas.
Buchanan, J. G.
Christie, J. H.
Cole, W. W.
Easton, A.
Allegheny City—
Faulkner, R. B.
Gilliford, R. H.
Heckleman, H. W.
Herron, W. M.

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Allegheny City—
Huselton, W. S.
Johnston, J. B.
Kerr, J. W.
King, C. B.
Kirker, John
McCarrell, Jas.
McCready, R. J.
Mabon, Thos.
Meloney, J. M.
Miller, O. L.
Mowry, R. B.
Phillips, John S.
Rankin, D. N.
Redick, Samuel T.
Riggs, D. W.
Riggs, E. S.
Riggs, W. J.
Sarber, Wm.
Schmauser, Theo.
Shillito, G. M.
Smith, B. B.
Voight, C. H.
Crafton—Foster, D. G.
Dixmont—Ayres, Samuel
Reed, Jos. A.
Wiley, Chas. C.
Etna—Kroesen, W. B.
Purvis, W. J.
Library—Cheeseman, Geo.
Mansfield—Walker, R. L.
McKeesport—Knox, Wm. F.
Huffman, D. C.
Vankirk, T. R.
Oakland—Connell, Jas. G.
Pittsburg—Asdale, W. J.
Arnholt, M. A.
Batten, Jno. M.
Benham, S. N.
Blumberg, Albert
Bruce, Geo. D.
Case, A. G.
Chessrown, A. V.
Christy, T. C.
Clark, H. H.
Daly, W. H.
Davis, B. L.
Davis, Thos. D.

Pittsburg—
Dickson, John
Dickson, John S.
Dickson, Joseph N.
Duff, J. M.
Duncan, J. A.
Duncan, J. L.
Dunn, J. C.
Dyer, Ezra
Emmerling, C.
Estep, W. J.
Evans, T. R.
Fife, J. R.
Fleming, A.
Foster, W. S.
Fundenberg, W. F.
Gallaher, T. J.
Greene, J. J.
Grimes, Jos. B.
Hengst, D. A.
Heiber, J. H.
Koeller, Frank
Lee, J. W.
Legge, J. H.
LeMoyne, F.
Lippincott, J. A.
McCandless, J. G.
McCann, Jas.
McCormick, J. C.
McCoy, A. W.
McCready, J. A.
McDonald, Nesbit
McKelvey, W. H.
McNeil, G. W.
March, Daniel
Miller, W. N.
Murdock, J. B.
Neely, J. W.
O'Connor, H. R.
Patten, N. N. P.
Pollock, A. M.
Purviance, Geo.
Rahauser, Geo. G.
Rea, Jas. C.
Reiter, W. C.
Rex, T. A.
Schnatz, W. F.
Shaw, Thos. W.

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Pittsburg—
Shaw, W. C.
Snively, Whitmer
Snodgrass, Jas. H.
Speer, Alex.
Stevenson, Edw. S.
Stevenson, Jas. M.
Sutton, R. S.
Thomas, J. D.

Pittsburg—
Wallace, Wm.
Wightman, S. J.
Wishart, C. A.
Wishart, J. W.
Wood, E. A.
Springdale—Metz, A. H.
Wilkinsburg—Sample, John.

ARMSTRONG COUNTY.

Officers.

President,	T. H. Allison,	Kittanning.
Vice-President,	J. G. Cunningham,	"
Corresponding Secretary,	W. H. Stewart,	"
Recording Secretary,	W. J. Cook,	Freeport.
Treasurer,	T. M. Allison,	Kittanning.

Members.

Apollo—Ainsley, W. B.
Freeport—Alter, David
Cook, W. J.
Gillespie, C. B.
McCurdy, R. L.
Morrow, W. L.
Schnatterly, L. W.
Thomas, A. G.
Goheenville—Calhoun, A. J.
Kittanning—Allison, T. H.
Allison, T. M.

Kittanning—
Alter, M. H.
Bowman, R. P.
Cunningham, J. G.
Jessup, Chas. J.
Stewart, W. H.
Leechburg—Hunter, R. P.
Mahoning—Marshall, R. P.
Middlesex—Ralston, R. G.
Slate-lick—McKee, J. W.
Worthington—Maxwell, J. K.

BEAVER COUNTY.

Officers.

President,	H. S. McConnell,	New Brighton.
Vice-President,	J. H. Wilson,	Beaver.
Secretary,	Stephen A. Craig,	Freedom.
Treasurer,	D. L. Marquis,	Rochester.

Members.

Allegheny City (Alle'y Co.)—
Langfitt, W. J.
Baden—Boal, G. Y.
Beaver—Riggs, W. J.
Wilson, J. H.
Beaver Falls—Elliot, J. S.
Economy—Feicht, Benj.

Freedom—Craig, Stephen A.
Hookstown—McPheeters, W. D.
New Brighton—McConnell, H. S.
McKinney, David, Jr.
Rochester—Marquis, David L.
Shoustown (Alle'y Co.)—Barr, Jas. A.
Water Cure—Temple, J. C.

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(?) BEDFORD COUNTY.

Officers.

President,	A. Enfield,	Clearville.
Vice-President,	S. G. Miller,	Everett.
Secretary,	H. Howard Hill,	"
Treasurer,	E. J. Miller,	Ray's Hill.

Members.

Bedford—Griffith, D. S.
Centerville—Calhoun, C. P.
Clearville—Enfield, A.
Everett—Hill, H. Howard
Miller, L. G.
Miller, S. G.
Ray's Hill—Miller, E. J.
St. Clairsville—Long, Chas.
Plank, D. A.
Woodburg—Olig, John

BERKS COUNTY.

Officers.

President,	Jas. Y. Shearer,	Sinking Spring.
Vice-Presidents,	Jos. Coblentz,	Reading.
	L. De Be Kuhn,	"
Recording Secretary,	Israel Cleaver,	"
Corresponding Secretary,	John B. Brooke,	"
Treasurer,	J. B. Stearley,	"

Members.

Adamstown (Lancaster Co.)—
Randenbash, A. M.
Bernville—Brobst, John A.
Byerle, Geo. W.
Boyertown—Eck, W. H.
Centreport—Loose, C. G.
Fredericksburg (Lebanon Co.)—
Shirk, Levi A.
Leesport—Brobst, Edward
Lenhartsville—Seaman, John K.
Maiden Creek—Hunsberger, Wm. E.
Oley—Bertolet, Edwin A.
Pricetown—Weber, Chas.
Reading—Beaver, Daniel B. D.
Reading—
Brooke, John B.
Cleaver, Israel
Coblentz, Jos.
Dundor, A. B.
Good, Frank H.
Kuhn, L. DeB.
Kurtz, Samuel L.
Lee, Bernard R.
Muhlenberg, Wm. F.
Stearly, J. B.
Weidman, W. Murray
Sinking Spring—Shearer, Jas. Y.
Temple—Matthews, Frank

BLAIR COUNTY.

Officers.

President,	Geo. E. Brehman,	Altoona.
Vice-Presidents,	R. W. Christy,	Sabbath Rest.
	C. H. Closson,	Altoona.
Secretary,	Rowan Clarke,	Bellwood.
Treasurer,	John D. Ross,	Williamsburg.

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MEMBERS.

Altoona—Arney, G. F.
Brehman, Geo. E.
Closson, C. H.
Fay, John
Findley, Wm. M.
Jacob, Harry
Miller, E. S.
Ross, S. M.
Bellwood—Clarke, Rowan
Thompson, John C.
Hollidaysburg—Hays, D. S.
Irwin, Crawford
Irwin, Robert
Roller, W. C.
Smith, Geo. W.
Martinsburg—Bloom, F. G.
Bloom, Homer C.
Bonebreak, D. W.
Newry—Black, M. F.
Roaring Spring—Stayer, A. S.
Sabbath Rest—Christy, R. W.
Sarah P. O.—Johnston, John W.
Spruce Creek—Thompson, Sydney
Tyrone—Gemmill, J. M.
Smith, Jas. M.
Williamsburg—Ake, Jos. H.
Ross, John D.
White, T. H.

BRADFORD COUNTY.

OFFICERS.

President,	O. H. Rockwell,	Monroeton.
Vice-Presidents,	J. W. Lyman,	Towanda.
	C. H. Scott,	Athens.
Recording Secretary,	E. D. Payne,	Towanda.
Corresponding Secretary,	T. B. Johnson,	"
Treasurer,	D. N. Newton,	"

MEMBERS.

Athens—Allen, E. P.
Scott, C. H.
Burlington—Everett, E. A.
Tracey, G. P.
Camptown—Homet, Volney.
Laceyville—Ely, R. H.
LeRoysville—Dusenbury, C. S.
Monroeton—Hull, W. C.
Rockwell, O. H.
New Era—Jones, L. A.
Rome—Rice, Wm.
Smithfield—Moody, H. M.
Standing Stone—Clagett, W. L.
Stevensville—Knapp, C. B.
Sugar Run—Quick, P. A.
Terrytown—Horton, Geo. F.
Towanda—De la Montayne, L.
Johnson, T. B.
Ladd, C. K.
Lyman, J. W.
Newton, D. N.
Newton, F. G.
Payne, E. D.
Woodburn, S. M.
Troy—Axtell, A. K.
Paine, Chas. F.
Tracey, E. G.
Ulster—Mills, Edward
West Franklin—Kilbourn, H. B.

BUCKS COUNTY.

OFFICERS.

President,	A. M. Cooper,	Point Pleasant.
Vice-President,	J. B. Walter,	Centre Bridge.
Recording Secretary,	Joseph Foulke,	Buckingham.
Corresponding Secretary,	Wm. E. Doughty,	Hartsville.
Treasurer,	G. R. McCoy,	Doylestown.

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MEMBERS.

Buckingham—Foulke, Joseph
Centre Bridge—Walter, Joseph B.
Doylestown—McCoy, G. R.
Swartzlander, Frank.
Hartsville—Doughty, Wm. E.
Hilltown—Kratz, Harvey
Plumsteadville—Krause, J. H.
Point Pleasant—Cooper, A. M.

BUTLER COUNTY.

OFFICERS.

President,	J. McMichael,	Barnhart's Mills.
Vice-President,	A. M. Neyman,	Butler.
Secretary and Treasurer,	John E. Byers,	"

MEMBERS.

Baldwin—McBride, C. F.
Barnhart's Mills—Bell, S. D.
McMichael, J.
Peck, C. E.
Breakneck—Irwin, W.
Butler—Bredin, S.
Byers, John E.
Graham, S.
Neyman, A. M.
Pillow, R. H.
Connoquenessing—Christy, J. L.
Coultersville—Cowden, W. R.
Harmony—Lusk, Jos. S.
Karn's City—Harper, Daniel
North Hope—Henlen, B. A.
Hoover, N. M.
Saxonsburg—King, J. H.
Whitestown—Clark, W. N.

CENTRE COUNTY.

OFFICERS.

President,	J. M. Blair,	Fleming.
Vice-Presidents,	J. F. Woods,	Boalsburg.
	D. H. Mingle,	Millheim.
Secretary and Treasurer,	Thos. R. Hayes,	Bellefonte.

MEMBERS.

Aaronsburg—Musser, P. T.
Bellefonte—Dorworth, E. S.
Hale, E. W.
Harris, Geo. F.
Hayes, Thos. R.
Hibler, Augustus
Boalsburg—Woods, John F.
Centre Hall—Alexander, J. F.
Jacobs, W. A.
Fillmore—Thompson, J. C.
Fleming—Blair, J. M.
Cambridge, C. H.
Lemont—Dale, J. Y.
Millheim—Mingle, D. H.
Penna. Furnace—Van Tries, Thos. C.
Pine Grove—Smith, J. R.
Port Matilda—Fugate, S.
Snow Shoe—Thompson, J. A.
Spring Mills—Leitzell, J. B.
Van Valzah, F. H.
Zion—Fisher, P. S.

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CHESTER COUNTY.

Officers.

President,	E. V. Swing,	Cains (Lancaster Co.)
Vice-President,	G. R. Spratt,	Coatesville.
Recording Secretary,	Ephraim Hopkins,	Marshallton.
Corresponding Secretary,	Wm. R. Perdue,	Unionville.
Treasurer,	Chas. E. Woodward,	West Chester.

Members.

Avondale—Stevens, Wm. O.
Brandywine Manor—Thompson, N. G.
Cains (Lancaster Co.)—Swing, E. V.
Chadd's Ford—Hayward, Henderson
Coatesville—Morrison, T. S.
Spratt, Geo. R.
Glen Lock—Carey, R. B.
Honey Brook—Treichler, C. Galen
Horneville—Houston, I. Wills.
Landenburg—Thompson, Benj.
Logue's Corner—Woodruff, Henry
London Grove—Stubbs, Jos. H.
Malvern—Henderson, J. D. W.
Marshallton—Hopkins, Ephraim
Milltown—Hoskins, Percy
New London—Fulton, James
Oxford—Kennedy, D. D.
Pomeroy—Taylor, Thos. A.
Unionville—Perdue, Wm. R.
Stebbins, Sumner
West Chester—Brinton, John B.
Brinton, Wm. B.
Hoskins, John R.
Ingram, Thos. D.
Jackson, Edw.
Massey, Isaac
Price, Jacob
Woodward, Chas. E.
West Grove—Ewing, R. B.

CLARION COUNTY.

Officers.

President,	J. M. Fitzgerald,	Lamartine.
Vice-President,	W. D. Reinhardt,	Edenburg.
Secretary,	James Frank Ross,	Clarion.
Treasurer,	Jas. Ross,	"

Members.

Callensburg—Meals, N. M.
Meals, S. D.
Clarion—Ross, James
Ross, J. F.
Corsica—Lowson, T. C.
Edenburg (Knox P. O.)—
Ledenham, J. W.
Reinhardt, Wm. D.
Shoemaker, W. P.
Foxberg—Ross, W. S.
New Bethlehem—Criswell, John
Wick, A. J.
Lamartine—Clover, W. M.
Fitzgerald, J. M.
Sligo—Beck, J. N.
Strattonville—Barber, J. H.
St. Petersburg—Foster, Wm.

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CLEARFIELD COUNTY.

Officers.

President,	G. M. Whittier,	Houtzdale.
Vice-President,	W. J. Smathers,	Du Bois.
Secretary and Treasurer,	H. B. Van Valzah,	Clearfield.

Members.

Clearfield—Burchfield, J. P.
Hartswick, J. G.
Van Valzah, H. B.
Du Bois—Means, W. A.
Smathers, W. J.
Houtzdale—Houge, D. A.
Whittier, G. M.
Lumber City—Fetzer, D. A.
Luthersburg—Spackman, R. V.
Osceola Mills—Read, F. B.

CLINTON COUNTY.

Officers.

President,	Ira D. Canfield,	Renovo.
Vice-President,	J. H. Huston,	Clintondale.
Secretary,	Frank P. Ball,	Salona.
Treasurer,	R. B. Watson,	Lock Haven.

Members.

Beach Creek—Mothersbaugh, H. H.
Tibbins, J. E.
Clintondale—Huston, J. H.
Flemington—Vandersloot, F. W.
Lock Haven—Armstrong, R.
Burton, J. H.
Fishburne, J. H.
Musgrove, Chas. W.
Watson, R. B.
Mackeyville—Dunn, J. M.
Mill Hall—McClosky, J. B.
Renovo—Canfield, Ira D.
Meloy, A. P.
Reese, D. J.
Salona—Ball, Frank P.
Holloway, L. M.

COLUMBIA COUNTY.

Officers.

President,	J. H. Vastine,	Numidia.
Vice-Presidents,	C. S. Harder,	Rohrsburg.
	H. W. McReynolds,	Bloomsburg.
Secretary,	L. B. Kline,	Catawissa.
Treasurer,	J. B. McKelvey,	Bloomsburg.

Members.

Bloomsburg—Evans, J. R.
Gardner, B. F.
McKelvey, J. B.
Bloomsburg—
McReynolds, H. W.
Reber, W. M.

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Buckhorn—Lenher, C.
Catawissa—Kline, L. B.
Robins, J. K.
Jerseytown—Swisher, T. J.
Mifflinville—Brown, J. J.
Numidia—Mears, G. W.
Vastine, J. H.
Orangeville—Ammerman, C. W.
McGargle, O. A.
Rohrsburg—Harder, C. S.

CRAWFORD COUNTY.

Officers.

President,	A. P. Waid,	Spartansburg.
Vice-President,	Wm. Varian,	Titusville.
Secretary and Treasurer,	Theo. J. Young,	"

Members.

Centreville—Clark, S. G.
Cochranton—Hassler, Jas. P.
Meadville—Best, David
Calvin, D. M.
Cotton, J. C.
Dewey, E. H.
Eagleson, J. S.
Greenlee, D. R.
Rhoads, Miss A. F.
Spartansburg—Waid, A. P.
Waid, J. T.
Titusville—Barr, Geo. W.
Dunigan, M. C.
Littlefield, J. D.
Moody, Geo. O.
Varian, Wm.
Young, Theo. J.

CUMBERLAND COUNTY.

Officers.

President,	M. B. Mosser,	Mechanicsburg.
Vice-Presidents,	J. C. Claudy,	Newville.
	G. W. Ziegler,	Carlisle.
Recording Secretary,	E. N. Mosser,	Mechanicsburg.
Corresponding Secretary,	S. B. Keiffer,	Carlisle.
Treasurer,	S. P. Ziegler,	"

Members.

Big Spring—Grove, Geo.
Camp Hill—Criswell, J. T.
Carlisle—Bixler, J. R.
Dale, W. W.
Herman, A. J.
Keiffer, S. B.
Krise, C. W.
Reily, W. F.
Sibbett, R. Lowry
Stewart, Thos., Sr.
Stewart, Thos., Jr.
Carlisle—
Ziegler, G. W.
Ziegler, S. P.
Dickinson—Longsdorff, W. H.
Hoguestown—Bowman, J. W.
Lisburn—Trimmer, J. W.
Mechanicsburg—Brandt, E. B.
Day, Alfred
Hummel, C. C.
Lenher, L. H.
Mosser, E. N.

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Mechanicsburg—
Mosser, M. B.
Short, R. N.
Mt. Holly Springs—Lauman, W. H.
Newburg—Leberknight, F. B.
New Cumberland—Roop, J. W.
New Kingston—Fulk, Levi
Newville—Brehm, S. H.
Claudy, J. C.
Hays, Robt. M.
Stewart, W. G.
Plainfield—Van Camp, J. E.
Shepperdstown—Boyer, J. H.
Shippensburg—Hayes, D. D.
Hayes, R. C.
Howland, C. A.
Stewart, R. C.
Witherspoon, W. M.
Shiremanstown—Bruckart, W. S.
Walnut Bottom—Amberson, J. B.

DAUPHIN COUNTY.

Officers.

President,	H. L. Orth,	Harrisburg.
Vice-Presidents,	J. D. Bowman,	"
	J. F. Bowman,	Millersburg.
Secretary,	Paul A. Hartman,	Harrisburg.
Treasurer,	C. C. Seabrook	"

Members.

Churchville—Putt, M. O.
Dauphin—Umberger, J. B.
Halifax—Bischoff, H. W.
Harrisburg—Bishop, W. T.
Bowman, J. D.
Coover, D. H.
Coover, E. H.
Curwen, John
Gerhardt, J. Z.
Gorgas, S. R.
Hamilton, Hugh
Hartman, Paul A.
Hay, J. W.
Hutton, J. C.
Jacobs, Geo. L.
McGowan, H.
Meals, E. S.
Orth, H. L.
Harrisburg—
Rahter, C. A.
Reilly, G. W.
Seabrook, C. C.
Smith, J. K.
Stahley, Geo. D.
Witman, H. O.
Hummelstown—Rupp, H.
Middletown—Beane, W. H.
Mish, G. F.
Millersburg—Bowman, J. F.
Steelton—Seibert, W. H.
Travers, D. B.
Union Deposit—Keller, D. C.
Keller, H. D.
Wiconisco—Schofield, E. Lane.
Williamstown—DeVinney, S. C.
McGill, Peter.

DELAWARE COUNTY.

Officers.

President,	D. W. Jefferis,	Media.
Vice-President,	T. Ridgeley Graham,	Chester.
Secretary,	Linnæus Fussel,	Media.
Treasurer,	John Weston,	Chester.

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MEMBERS.

Chester—Allen, John M.
Coates, Isaac T.
Forwood, J. F. M.
Graham, T. R.
Harvey, Ellwood
Milner, R. H.
Rose, David
Ulrich, Wm. B.
Weston, John
Clifton Heights—Bartleson, S. P.
Given, Robert A.
Concordville—Darlington, Hillborn
Darlington, Horace
Lenni—Murray, F. Marion
Lima—Trimble, Samuel
Linwood—Green, G. Dillwyn
Media—Baker, Frances N.
Dickson, M. T. W.
Fussell, Edwin
Fussell, Linnæus
Fussell, R. L.
Jefferis, D. W.
Kerlin, I. N.
Newtown Square—Thomas, John G.
Ridley Park—Partridge, C. L.
Sharon Hill—Longstreth, M. Fisher
Thornton—Horner, Joseph H.

ERIE COUNTY.

OFFICERS.

President,	D. R. Waggoner,	McKean.
Vice-President,	A. Z. Randall,	Erie.
Secretary,	W. C. Evans,	"
Treasurer,	J. T. Clarke,	"

MEMBERS.

Corry—Bonsteel, A. S.
Kibler, C. B.
Mackrees, H. O.
Pickett, M.
Edinboro'—Hotchkiss, S. B.
Erie—Brandes, C.
Clarke, J. T.
Evans, W. C.
Gray, T. H.
Lovett, A. S.
Randall, A. Z.
Silliman, J. E.
Stewart, J. L.
Erie—
Stranahan, C. W.
Thayer, A.
Woods, A. A.
Girard—Taylor, I. N.
Harbor Creek—Tracey, W. C.
McKean—Waggoner, D. R.
North East—Griffin, J. K.
Hall, L. G.
Loop, D. D.
Wattsburg—Chapin, S. F.
Thickstun, G.

(?) FAYETTE COUNTY.

OFFICERS.

President,	W. H. Sturgeon,	Uniontown.
Vice-President,	C. C. Reichard,	Brownsville.
Recording Secretary,	John Hawkins,	Uniontown.
Assist. Recording Secretary,	W. S. Duncan,	Brownsville.
Treasurer,	R. W. Clarke,	Dunbar.

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MEMBERS.

Bellevernon—Hazlett, J. C.
Van Voorhis, J. S.
Broadford—Strickler, A. W.
Brownsville—Duncan, W. S.
Grooms, J. B.
Jackson, Isaac
Nelan, J. R.
Reichard, C. C.
Shoemaker, B.
Connellsville—Buttermore, Smith
Lindley, L.
Philip, E.
Singer, J. J.
Dunbar—Clarke, R. W.
Sheplar, J. T.
Geneva—Greene, Wilson
Masontown—Neff, Geo. W.
Sangster, J. P.
Merrittstown—Eastman, Henry
Perryopolis—Davidson, J. H.
Smithfield—Mathiot, H. B.
Uniontown—Ewing, J. B.
Fuller, Smith
Gaddis, L. S.
Hawkins, John
Robinson, F. C.
Sturgeon, Wm. H.

FRANKLIN COUNTY.

OFFICERS.

President,	H. G. Chritzman,	Welsh Run.
Vice-Presidents,	E. Hartzell,	Fayetteville.
	Chas. Garver,	Scotland.
Recording Secretary,	John Montgomery,	Chambersburg.
Corresponding Secretary,	Chas. H. Merklein,	"
Treasurer,	J. L. Suesserott,	"

MEMBERS.

Chambersburg—Hull, Geo. S.
Lane, S. G.
McLanahan, T. J.
Merklein, C. H.
Montgomery, John
Seibert, J. P.
Sensenny, E. N.
Suesserott, J. L.
Dry Run—Flickenger, J. H.
Hinchman, W. A.
Fayetteville—Hartzell, E.
Greencastle—Gilland, J. C.
Green Village—Maclay, David
Harrisonville (Fulton Co.)—
Wishart, H. S.
Mercersburg—Walker, T. H.
Unger, D. F.
Saint Thomas—Ramsay, R. W.
Van Tries, J. M.
Gelwix, J. M.
Upper Strasburg—Hunter, W. A.
Upton—Noble, W. P.
Waynesboro'—Snively, I. N.
Strickler, A. H.
Welsh Run—Chritzman, H. G.

GREENE COUNTY.

OFFICERS.

President,	T. H. Sharpneck,	Jefferson.
Recording Secretary,	T. B. Hill,	Ruff's Creek.
Treasurer,	D. W. Braden,	Waynesburg.

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MEMBERS.

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Milliken, J. L.
Jefferson—Patton, A. B.
Sharpneck, T. H.
Smith, S. S.
New Freeport—Wilson, W. C. Q.
Newtown—Moss, G. W.
Nineveh—Throckmorton, W. S.
Rogersville—Ullon, J. F.
Ruff's Creek—Hill, T. B.
Waynesburg—Blachley, B. M.
Braden, D. W.
Cross, A. G.
James, J. H.
Rogers, T. R.

(?) HUNTINGDON COUNTY.

OFFICERS.

President,	D. P. Miller,	Huntingdon.
Vice-President,	Isaac Guss,	Cassville.
Secretary and Treasurer,	A. B. Brumbaugh,	Huntingdon.

MEMBERS.

Cassville—Guss, Isaac
Huntingdon—Brumbaugh, A. B.
Miller, D. P.
Mount Union—Thompson, G. W.
Warrior's Mark—Dinwiddie, J. W.

INDIANA COUNTY.

OFFICERS.

President,	E. Brallier,	Cherrytree.
Vice-President,	L. S. Clagett,	Blairsville.
Secretary,	J. M. Torrence,	Indiana.
Treasurer,	John W. Hughes,	Blairsville.

MEMBERS.

Blacklick—Wiggins, S. L.
Blairsville—Clagett, L. S.
Hughes, J. W.
Rutledge, S. R.
Cherrytree—Brallier, E.
Hosack, Wm.
Greenville—McMullen, Thos.
Indiana—Anderson, Wm.
Barr, Robert
Purington, A. F.
Indiana—
Torrence, J. M.
Jacksonville—Cunningham, W. N.
Marchand—Morrow, J. Wilson
Mechanicsburg—McMullen, Jas.
Newville—McCrea, C. S.
Saltsburg—Carson, Thos.
Crawford, J. L.
Shelocta—Marland, T. J.
West Lebanon—Larimer, W. T.

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JEFFERSON COUNTY.

Officers.

President,	W. M. B. Gibson,	Reynoldsville.
Vice-President,	G. H. Hilliard,	Richardsville.
Secretary,	A. F. Balmer,	Brookville.
Corresponding Secretary,	W. F. Matson,	"
Treasurer,	R. B. Brown,	Summerville.

Members.

Big Run—Cox, A. P.
Brookville—Balmer, A. F.
Lawson, T. C.
Matson, C. M.
Matson, W. F.
Corsica—Thompson, John
Greenville (Clarion Co.)—
Johnson, S. C.
Punxatawney—Beyer, W. F.
Henry, J. A.
Reynoldsville—Alexander, W. B.
Boyles, R. M.
Foust, J. W.
Gibson, W. M. B.
King, J. C.
Richardsville—Hilliard, G. H.
Rockdale Mills—Rankin, M. M.
Stanton—Woods, W. W.
Summerville—Brown, R. B.

LACKAWANNA COUNTY.

Officers.

President,	B. H. Throop,	Scranton.
Vice-Presidents,	Chas. Burr,	"
	Geo. B. Boyd,	"
Secretary,	W. F. Pier,	Pleasant Valley.
Treasurer,	J. W. Gibbs,	Hyde Park, Scranton.

Members.

Carbondale—Burnett, J. W.
Wheeler, H. C.
Clark's Green—Evans, Benj. F.
Dunmore—Hopkins, Benj. C.
Hyde Park, Scranton—Allen, Wm. E.
Gibbs, L. H.
Gibbs, J. W.
Heath, Wm. H.
Heermans, E. A.
Jones, H. I.
Robathan, J. W.
Jermyn—Davis, S. B.
Lackawanna—Houser, J. W.
Moscow—Frischkorn, Chas.
Pleasant Valley—Pier, W. F.
Providence—Higgins, P. J.
Lackey, H. P.
Scranton—Boyd, Geo. B.
Burr, Chas.
Connell, A. J.
Everhart, I. F.
Fisher, C. H.
Gates, L. M.
Hand, D. B.
Ladd, Horace
Reid, S. P.
Squire, R. A.
Stuart, Thos.
Throop, B. H.
Throop, Geo. S.
Wehlan, L.

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LANCASTER COUNTY.

Officers.

President,	J. A. Thomson,	Wrightsville (York Co.).
Vice-Presidents,	A. M. Miller,	Bird-in-Hand.
	F. G. Albright,	Lancaster.
Recording Secretary,	William Blackwood,	"
Corresponding Secretary,	Geo. R. Welchans,	"
Treasurer,	J. Aug. Ehler,	"

Members.

Bainbridge—Bean, G. W.
Weisman, Geo. T.
Bethesda—Yost, J. F.
Bird-in-Hand—Miller, A. M.
Buck—Deaver, J. M.
Chestnut Level—Musser, H. E.
Christiana—Plank, E.
Columbia—Berntheizel, G. W.
Bockius, J. A.
Bruner, D. J.
Cotterell, J. F.
Craig, Alex.
Lineaweaver, J. K.
Conestoga Centre—Clinger, P. S.
Mowery, J. L.
Earlville—Horst, M. W.
Elizabethtown—Treichler, A. C.
Ephrata—Lightner, J. M.
McCaa, D. G.
Gap—Parke, A. G. B.
Green—Glacken, M.
Hinkletown—Reimsnyder, B. F.
Intercourse—Smith, W. H.
Lampeter—Musser, J. H.
Lancaster—Albright, F. G.
Atlee, John L., Sr.
Atlee, John L., Jr.
Blackwood, Wm.
Bolenius, R. M.
Carpenter, Henry
Compton, Wm.
Cox, T. B.
Davis, S. T.
Ehler, J. A.
Herr, A. J.
Herr, M. L.
Lancaster—
Roland, O.
Stehman, H. B.
Welchans, G. R.
Leaman Place—Leaman, Brainard
Lincoln—Charles, Jacob
Litiz—Hertz, J. K.
Roebuck, P. J.
Manheim—Dunlap, J. F.
Marietta—Alexander, J.
Millersville—Davis, M. L.
Herr, B. F.
Mt. Joy—Heistand, A. M.
Sheller, A.
Zeigler, J. L.
Mountville—Livingston, T. M.
New Holland—Bushong, J.
Kohler, J.
New Providence—Wentz, W. J.
Oregon—Dillman, J.
Paradise—Smith, A. H.
Philadelphia (Phila. Co.)—
Righter, W.
Reamstown—Trabert, J. W.
Salunga—Kendig, B.
Soudersburg—Davis, J. H.
Strasburg—Black, H. M.
Brackbill, Jos.
Musser, B.
Weaver, J. E.
Union Station—Bleiler, P. O.
Wrightsville (York Co.)—
Thompson, J. A.
Willowstreet—Mayer, I. H.
Witmer—Musser, F. M.

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LAWRENCE COUNTY.

Officers.

President,	D. Cunningham,	Wurtemburg.
Vice-President,	Mont. Linville,	New Castle.
Secretary,	M. H. Dean,	Wampum.
Treasurer,	H. P. Peeples,	New Castle.

Members.

Edenburg—Mitcheltree, Wilson
Mt. Jackson—Truesdale, ——
New Bedford—Stevenson, Silas
New Castle—Blackwood, T. J.
Jackson, P. D.
Linville, Mont.
Peeples, H. P.
Pollock, J. K.
Wallace, D. R.
New Castle—
Wood, I. D.
Princeton—McKee, J. C.
Pulaski—Riley, C. K.
Wampum—Dean, M. H.
Rhodes, Joe.
Wilmington—Smith, W. L.
Wurtemburg—Cunningham, Dewees

LEHIGH COUNTY.

Officers.

President,	E. G. Martin,	Allentown.
Recording Secretary,	P. L. Reichard,	"
Corresponding Secretary,	J. D. Erdman,	Macungie.
Treasurer,	Wm. B. Erdman,	"

Members.

Allentown—Martin, A. J.
Martin, E. G.
Reichard, P. L.
Young, Samuel
Alburtis—Barndt, S. K.
Centre Valley—Erdman, F. C.
Germonsville—Kistler, W. K.
Lynnville—Seiberling, F. C.
Macungie—Erdman, J. D.
Erdman, W. B.
Trexlertown—Herbst, Wm.

LUZERNE COUNTY.

Officers.

President,	Fred. Corss,	Kingston.
Vice-Presidents,	Harry Hakes,	Wilkesbarre.
	A. A. Barton,	Plains.
Secretary and Treasurer,	G. W. Guthrie,	Wilkesbarre.

Members.

Ashley—Tewksberry, A. D.
Conyngham—Brundage, Franklin
Dallas—Spencer, C. A.
Huntsville—Rogers, J. J.
Kingston—Corss, Fred.
Mill Hollow—Faulds, W. H.
Nanticoke—Holly, S. L.
Pittston—Rice, J. N.
Troxell, E. R.
Underwood, G.

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Plains—Barton, A. A.
Shive, P. C.
Shickshinny—Hughes, M. B.
Upper Lehigh—Mays, T. J.
White Haven—Davenport, B. H. R.
Trimmer, S. W.
Wilkesbarre—Bulkeley, J. E.
Cressler, John M.
Crawford, J. B.
Davis, R.
Wilkesbarre—
Guthrie, G. W.
Hakes, Harry
Harvey, O. F.
Mayer, E. R.
Murphy, J. A.
Ross, I. E.
Weaver, W. G.
Wyoming—Knapp, Chas. P.

LYCOMING COUNTY.

Officers.

President,	Thomas H. Helsby,	Williamsport.
Vice-Presidents,	W. R. Hull,	"
	G. J. Pfouts,	Jersey Shore.
Secretary,	J. P. McVicker,	Williamsport.
Treasurer,	B. H. Detwiler,	"

Members.

Cogan Station—Howell, Wm. M.
Driftwood—Smith, S. S.
Torbit, E. G.
Earley (Elk Co.)—Earley, J. C.
Jersey Shore—Dwight, M. B.
Pfouts, G. J.
Hughesville—Hill, Geo.
Montoursville—Lyon, Chas.
McCormick, H. G.
Tomlinson, Jno.
Montgomery Station—Hull, A. P.
Muncy—Saeger, Geo. C.
Williamsport—Allen, C. L.
Burrell, J. L. A.
Williamsport—
Campbell, E. B.
Detwiler, B. H.
Helsby, T. H.
Hull, W. R.
Lumly, E. D.
Lyon, Edw.
Lyon, Thos.
McVicker, J. P.
Nutt, G. D.
Richter, A.
Saylor, Jean
Waymouth, W. C.
Young, J. W.

MERCER COUNTY.

Officers.

President,	J. B. Livingston,	West Middlesex.
Vice-Presidents,	A. T. Clark,	Greenfield.
	L. N. Woods,	Wheatland.
Secretary,	E. Griswold,	Sharon.
Treasurer,	J. W. Mehard,	Mercer.

Members.

Clarksville—Tidd, E. J.
Greenfield—Clark, A. T.
Elliott, Thos.
Greenville—Leet, F. H.
Mossman, B. E.
Hadley—Jackson, T. M.
Jackson Center—McElrath, J. B.
Mercer—Hosack, J. P.
Mehard, J. W.
Mehard, S. S.

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Pardoe—Meyer, L. G.
Sandy Lake—Cooly, T. M.
Geibner, E. X.
Sharon—Bishop, H. M.
Griswold, E.
Heilman, S.
Reed, J. H.
Sheakleyville—Morrow, J. J.
Sharpsville—Twitmyre, J. H.
Stoneboro'—Cristler, J. H.
West Middlesex—Hillier, J. W.
Livingston, J. B.
Wheatland—Woods, L. N.
Worth—Elliott, Thos.

MIFFLIN COUNTY.

Officers.

President,	A. Harshberger,	Milroy.
Recording Secretary,	A. H. Sheaffer,	Lewistown.
Treasurer,	C. S. Hurlbut,	"

Members.

Belleville—Floyd, John B.
Hudson, M. F.
Lewistown—Campbell, R. A.
Hurlbut, C. S.
Marks, John J.
Sheaffer, A. H.
Van Valzah, T. H.
McVeytown—Brown, Jas. M.
Rothrock, A.
Milroy—Harshberger, A.
Harshberger, A. S.
Newton Hamilton—Mahon, Jos. T.

MONTGOMERY COUNTY.

Officers.

President,	Samuel Wolf,	Shippackville.
Vice-Presidents,	J. K. Reid,	Conshohocken.
	S. N. Wiley,	Norristown.
Recording Secretary,	P. Y. Eisenberg,	"
Corresponding Secretary,	Hiram Corson,	Plymouth Meeting.
Treasurer,	Ellwood M. Corson,	Norristown.

Members.

Ambler—Shrawder, J. S.
Ardmore—Anderson, Jos. W.
Gerhard, G. A.
Smith, Samuel S.
Bridgeport—Mann, Chas.
Bryn Mawr—Savery, Wm.
Centre Point—Meschter, G. K.
Centre Square—Seiple, L. C.
Conshohocken—Beaver, D. R.
Reid, J. K.
Stiles, Geo.
Evansburg—Umstead, J. U.
Hatboro'—Carrell, J. B.
Evans, I. Newton
Jeffersonville—Schrack, David, Jr.
Schrack, Jno.
Lansdale—Andrews, R. H.
Little Oley (Berks)—Neiman, N. Y.
Lower Merion—Arnold, H.
Mellersch, A.
Winters, Jos.
Norristown—Bradley, Chas.
Corson, Ellwood M.
Corson, Wm.
Drake, H. H.
Eisenberg, P. Y.
Knipe, J. O.
Read, L. W.
Tyson, A. R.

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Norristown—
Weaver, J. K.
Wiley, S. N.
Whitcomb, H.
Plymouth Mount—Corson, Hiram
Leedom, E. C.
Radnor (Delaware Co.)—
Sargent, Gorham P.
Royer's Ford—Morey, J.
Skippackville—Wolfe, Samuel
West Conshohocken—McKenzie, Wm.

MONTOUR COUNTY.

Officers.

President,	George Grauel,	Danville.
Vice-Presidents,	Alonzo Amerman,	"
	P. C. Newbaker,	Washingtonville.
Secretary,	J. D. Mausteller,	Danville.
Treasurer,	Isaac Pursell,	"

Members.

Danville, Amerman, Alonzo
Grauel, Geo.
Magill, Wm. H.
Mausteller, J. D.
Ogleby, Jas.
Pursell, Isaac
Danville—
Schultz, S. S.
Simington, R. S.
Strawbridge, Jas. D.
Washingtonville—Hoffa, J. P.

NORTHAMPTON COUNTY.

Officers.

President,	David Engelman,	Easton.
Vice-Presidents,	W. H. Seip,	Bath.
	Abraham Stout,	Bethlehem.
Recording Secretary,	Chas. McIntire, Jr.,	Easton.
Corresponding Secretary,	Isaac Ott,	"
Treasurer,	Amos Seip,	"

Members.

Bangor—Buzzard, John
Seem, A. A.
Bath—Fox, G. T.
Kern, P. M.
Seip, W. H.
Belfast—Uhler, T. M.
Bethlehem—Breinig, P. B.
Lawall, L. H.
Stout, Abraham
Chapmans—Berlin, J. O.
Cherryville—Engelman, J. P.
Easton—Abernethy, H. H.
Engelman, David
Green, Traill
Hunt, J. S.
Easton—
Knecht, Cyrus
Lachenour, H. D.
Laubach, Stephen
McIntire, Chas.
Mixsell, Jos.
Moore, J. W.
Ott, Isaac
Sandt, John
Sandt, Samuel
Seip, A.
Seip, M. S.
Hokendauqua (Lehigh Co.)—
Steinmetz, E. G.
Martin's Creek—Seem, A. K.

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Pen Argyle—Gotwald, A. G.
Petersville—Koch, J. G.
Philad'a (Phila. Co.)—Hess, R. J.
Portland—Gruver, S. J.
Weaversville—Weaver, S. J.

(?) NORTHUMBERLAND COUNTY.

Officers.

President,	T. R. Hull,	Milton.
Vice-Presidents,	C. H. Dougal,	"
	S. L. Van Valzah,	Watsontown.
Secretary,	J. H. Miles,	Milton.
Treasurer,	U. Q. Davis,	"

Members.

Augusta—Raker, W. M.
Elysburg—Gilbert, S. F.
McEwensville—Life, Henry.
Milton—Davis, U. Q.
Dougal, C. H.
Follmer, Jno. S.
Hull, T. R.
McCleary, J. P.
Miles, J. H.
Montanden—Purdy, M. E.
Mount Carmel—Williams, W. F.
Northumberland—Priestley, Jos.
Stoner, W. B.
Shamokin—Robbins, E. S.
Shamokin—
Weaver, C. W.
Snydertown—DeWitt, A. F.
Sunbury—Houpt, Fred. L.
Long, Hiram
Moody, W. W.
Treverton—Newbaker, J. B.
Turbotville—Horner, E. H.
Watsontown—Hunter, J. H.
Leiser, J. J.
McClure, J. F.
Marsh, W. L.
Rhoads, J.
Van Valzah, S. L.

PERRY COUNTY.

Officers.

President,	Henry Stiles,	Newport.
Vice-President,	M. B. Strickler,	New Bloomfield.
Recording Secretary,	James B. Eby,	Newport.
Corresponding Secretary,	H. O. Orris,	"
Treasurer,	Joseph Swartz,	Duncannon.

Members.

Benvenue (Dauphin Co.)—
Reutter, Geo. N.
Duncannon—Johnson, T. L.
McMorris, Noble C.
Swartz, Jos.
Werner, A. J.
Ickesburg—Cisna, W. R.
DeLancey, Chas.
Landisburg—Milliken, D. B.
Sheibly, J. P.
Loysville—Hooke, B. P.
Markleville—Shull, J. D.
Millerstown—Brubaker, D. T.
Dean, G. C.
Marysville—Eppley, Geo. W.
New Bloomfield—Strickler, M. B.
New Buffalo—Steele, F. C.
Newport—Eby, Jas. B.
Orris, H. O.
Singer, J. E.
Stiles, Henry

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PHILADELPHIA COUNTY.

Officers.

President,	Albert H. Smith,	Philadelphia.
Vice-Presidents,	John H. Packard,	"
	H. Lenox Hodge,	"
Recording Secretary,	Chas. B. Nancrede,	"
Corresponding Secretary,	Wm. Goodell,	"
Treasurer,	Wm. M. Welch,	"

Members.

Philadelphia—Adler, John M.
Adler, L. H.
Agnew, D. Hayes
Allen, Harrison
Allen, J. G.
Allis, Oscar H.
Andrews, Thos. H.
Ash, H. St. Clair
Ashhurst, John, Jr.
Ashhurst, Samuel
Ashmead, Wm.
Ashton, S. K.
Atkinson, Wm. B.
Atlee, W. L., Jr.
Baer, B. F.
Baker, W. H.
Baldwin, L. K.
Barr, D. M.
Barton, Isaac
Barton, J. M.
Baxter, H. F.
Beates, Henry
Bell, J. R. F.
Benner, H. D.
Bennett, W. H.
Bernardy, E. P.
Bidlack, J. B. W.
Blackwood, W. R. D.
Boker, C. S.
Bolling, Robt.
Bournonville, A. C.
Bradford, T. H.
Bradner, N. R.
Brinton, D. G.
Brinton, John H.
Bruen, Edw. T.
Buck, F. J.

Philadelphia—
Buck, W. Penn
Buckby, Wilson
Burnett, C. H.
Burns, Robt.
Burns, Robt. Bruce
Burns, W. A.
Burpee, David
Cadwalader, C. E.
Caldwell, Alex.
Cantrell, Jas. H.
Carncross, J. A.
Carroll, Wm.
Carter, John S.
Castle, F. D.
Chase, A. F.
Chestnut, J. H. W.
Clark, L. S.
Cleemann, R. A.
Coates, Benj. H.
Cohen, J. Solis
Collins, James
Cooper, J. C.
Crandall, J. V.
Crowley, T. S.
Cruice, R. B.
Cruice, W. R.
Curran, Wm.
Curtin, R. G.
Curtis, Levi
DaCosta, J. C.
Darrach, Jas.
Davidson, David
Drysdale, Thos. M.
Duer, E. L.
Duhring, L. A.
Dulles, C. W.

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Philadelphia—

Dunglison, R. J.
Dunmire, Geo. B.
Engel, Hugo
Eshleman, Emory
Eshleman, I. S.
Eskridge, J. T.
Evans, Edw. L.
Evans, Horace
Evans, H. Y.
Feldstein, A.
Fenton, Thos. H.
Fischer, Emil
Fleming, Wm. J.
French, M. S.
Frick, Wm. S.
Fricke, Albert
Garretson, Jas. E.
Gayley, Jas. F.
Getchell, F. H.
Girvin, Edwin R.
Girvin, Robt. M.
Gittings, J. B. H.
Goodell, Wm.
Graham, Jas.
Groff, C. A.
Gross, F. H.
Gross, S. D.
Gross, S. W.
Grove, John H.
Guiteras, John
Hall, A. D.
Hall, John C.
Hall, L. B.
Hamilton, G.
Hammell, B. F.
Harlan, Geo. C.
Harlow, L. D.
Hatfield, Nathan
Hatfield, N. L.
Hay, Thos.
Hazel, F. B.
Hearn, Jos.
Hellyer, Edw.
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Henry, F. P.
Hewson, Addinell
Heyl, Albert G.

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Hine, E. C.
Hinkle, A. G. B.
Hodge, H. L.
Holt, J. F.
Hooper, W H.
Hornor, C. W.
Hottenstein, C. D.
Hughes, D. E.
Hunt, Wm.
Hunter, Chas. T.
Hutchinson, Jas. H.
Ivison, John
Janney, Wm. S.
Jenks, W. F.
Johnson, Russell H.
Judd, L. D.
Keating, J. M.
Keating, Wm. V.
Keen, W. W.
Keir, W. G.
Kennedy, A. L.
Kerr, Geo.
Keyser, P. D.
Kirkbride, M. F.
Kirkbride, Thos. S.
Klapp, Jos.
Kline, Wm. O.
Knight, S. R.
Leaman, Henry
Lee, Benj.
Lee, R. H.
Leffman, Henry
Leidy, Jos.
Leidy, Ph.
Levan, J. R.
Levis, R. J.
Lopez, Jos. H.
Ludlow, John L.
Lyons, Wm.
McAdam, A. H.
McArthur, J. A.
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McRean, T. A.
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Minick, A. K.
Mitchell, S. Weir
Montgomery, E. E.
Moon, W. P.
Morehouse, Geo. R.
Morris, J. C.
Musser, J. H.
Nancrede, C. B.
Nash, J. D.
Nebinger, Andrew
Neff, Jas. S.
Newcomet, H. W.
Nolan, E. J.
O'Farrell, G. D.
O'Hara, Michael
Oliver, Chas. A.
O'Neill, J. J.
Osler, Owen
Ozias, H. W.
Packard, John H.
Pancoast, Jos.
Pancoast, Wm. H.
Parish, W. H.
Partenheimer, J. R.
Peale, J. Burd
Pearson, J. S.
Peltz, Josiah
Pepper, Wm.
Perkins, F. M.
Perkins, E. S.
Phelps, Wm. C.
Phister, Ben.
Pierson, J. S.
Porter, Wm. G.
Prall, C. R.
Price, M.
Reed, A. G.
Rex, G. A.
Rex, O. P.
Rich, T. C.

Philadelphia—
Richardson, J. G.
Rickards, Wm. M. L.
Risley, S. D.
Roberts, A. S.
Roberts, J. B.
Rogers, Robt. E.
Santee, E. I.
Schaffer, Chas.
Schapringer, A.
Schell, H. S.
Schoales, J. D.
Schott, Arnold
Seiler, Carl
Seyfert, J. H.
Shakspeare, E. O.
Shapleigh, E. B.
Shattuck, G. F.
Shelley, A. F.
Shoemaker, J. V.
Simsohn, J. S.
Skillern, S. R.
Skilling, M. J.
Slocum, A. M.
Smaltz, J. H.
Smith, Albert H.
Smith, H. Yale
Smith, Henry H.
Smith, Robt. M.
Stein, L. K.
Sterling, John
Stetler, J. G.
Stewart, W. S.
Stillé, Alfred
Stocker, A. E.
Stone, J. F.
Strawbridge, G.
Stubbs, Geo. E.
Styer, Chas.
Swayze, G. B. H.
Taylor, J. Howard
Taylor, Wm. T.
Thomas, Chas. H.
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Turnbull, L.
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Vanderslice, Edw.
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Vogler, Geo. W.
Wallace, Ellerslie
Webb, W. H.
Wehner, J. H.
Weir, A. H.
Welch, W. M.
Wells, J. R.
Wevill, R. H.
Whelen, Alfred
White, J. W.

Philadelphia—
Whiteside, J. E.
Willard, De Forrest
Williams, Horace
Wilson, B. B.
Wilson, Ellwood
Wilson, H. A.
Wilson, Jas. C.
Wilson, Jas. F.
Wirgman, Chas.
Wittig, Chas. F.
Wolford, W. S.
Wood, H. C.
Woodbury, F.
Woods, D. F.
Yarrow, Thos. J.
Zeigler, Geo. J.

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Cornwall (Lebanon Co.)—
Glein, Geo., Jr.
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Hermany, P.
Ramsay, R. N.
Thompson, L. M.
Mahanoy Plains—Taggart, D. Jr.
Taggart, L.
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Swayze, Mary A.
Swaving, J. G. C.
Weaver, R. J.
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Wiltrout, J. D.
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Robins, O. M.
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Fisk, Ansel J.
Smith, Robt. B.
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Bacon, M. L.
Baldwin, Mary E.
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Webb, W. W.
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Francis, W. R.
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Cooperstown—Crawford, J. K.
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Dille, G. W.
Dille, J. M.
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Moore, J. E.
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Christie, L. H.
Fleming, W. L.
Gillett, B.
Moore, E. W.
Snowden, S. G.

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Whann, W. L.
Oil City—Benton, S. H.
Church, T. C.
Coupe, A. F.
Egbert, T. W.
McCullough, T. C.
Ritchey, J. A.
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Pleasantville—Wilson, J.
Polk P. O.—Taylor, E. W.
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Summit City—Nicholson, W. A.
Schilling, G. W.
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Utica—Jackson, Homer
Johnson, F. H.
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East Bethlehem—Farquhar, X.
Eldersville—McCarrel, J. F.
Hickory—McCarrel, D.
McElroy, J.
Monongahela City—Linn, G. A.
Lytle, G. E.
Morrison, M. P.
Scott, F. P.
Sloan, J. G.
Wood, C. B.
Prosperity—Carey, E.
Sparta—Blachley, O. L.
Blachley, S. L.
Taylorstown—Crawford, J. S.
Vanceville—McDonough, H. H.
Washington—Little, J. H.
McElree, A. S.
McKean, J. A.
McKennan, Thos.
McKennan, H. S.
Thompson, W. R.
West Alexander—Eagleson, D. S.
Reed, J. B.
West Finley—Sprouls, J. N.
Zollarsville—Patterson, J. A.

WESTMORELAND COUNTY.

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Burrell—Moore, John R.
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Kamerer, J. W. B.

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Irwin Station—Humphreys, G. L.
Kifer, L. M.
Latrobe—Coleman, Wm. C.
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Welsh, D. E.
Madison—Milligan, J. D.
Mount Pleasant—McConaughy, Jas.
Marsh, F. L.
New Alexander—Cook, J. L.
Penn Station—Offut, Lemuel
Scottdale—McConaughy, Robert M.

YORK COUNTY.

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Secretary,	Samuel J. Rouse,	"
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Dillsburg—Bailey, W. B.
Shearer, Jas. M.
Woolford, ——
Glenville—Steck, W. C.
Glen Rock—Frey, Levi
Hanover—Allemon, Horace
Bittinger, J. H.
Snively, A. J.
Hellam—Armstrong, J. A.
Diesinger, J.
Loganville—Yost, G. P.
Manchester—Kain, J. B.
Wrightsville—Rebman, G. W.
York—Blair, A. R.
Cathcart, T. L.
York—
Gable, J. C.
Hart, Jacob
Hay, Jacob
Holahan, J. F.
Kerr, J. W.
Lochman, L. M.
Long, Alfred A.
McKinnon, M. J.
Meisenhelder, E. W.
Rouse, Saml. J.
Rowland, Wm. S.
Spangler, J. R.
Spangler, B. F.
Wiest, John.

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A County placed in parentheses ( ) indicates the Society of which the person is a member.

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Adler, John M., Philadelphia.
Adler, L. H., Philadelphia.
Agnew, D. Hayes, Philadelphia.
Ainey, A. J., Brooklyn, Susquehanna.
Ainey, D. C., New Milford, Susquehanna.
Ake, Joseph H., Williamsburg, Blair.
Albright, F. G., Lancaster, Lancaster.
Alexander, J., Marietta, Lancaster.
Alexander, J. F., Centre Hall, Centre.
Alexander, J. W., Canonsburg, Wash.
Alexander, W. B., Reynoldsville, Jefferson.
Allemon, Horace, Hanover, York.
Allen, C. L., Williamsport, Lycoming.
Allen, E. P., Athens, Bradford.
Allen, Harrison, Philadelphia.
Allen, John M., Chester, Delaware.
Allen, Joshua G., Philadelphia.
Allen, Wm. E., Hyde Park, Scranton, Lackawanna.
Allis, O. H., Philadelphia.
Allison, T. H., Kittanning, Armstrong.
Allison, T. M., Kittanning, Armstrong.
Alter, David, Freeport, Armstrong.
Alter, M. H., Kittanning, Armstrong.
Amberson, J. B., Walnut Bottom, Cumberland.
Ammerman, Alonzo, Danville, Montour.
Ammerman, C. W., Orangeville, Columbia.
Anawalt, James W., Greensburg, Westmoreland.
Anderson, Joseph W., Ardmore, Montg'y.
Anderson, Wm., Indiana, Indiana.
Andrews, R. H., Lansdale, Montg'y.
Andrews, Thomas H., Philadelphia.
Ansley, Wm. B., Freeport, Armstrong.
Armstrong, J. A., Hellam, York.
Armstrong, R., Lock Haven, Clinton.
Arney, G. F., Altoona, Blair.
Arnholt, M. A., Pittsburg, Allegheny.
Arnold, H., Lower Merion, Montg'y.
Amick, J. H. B., Schuylkill Haven, Schuylkill.
Asdale, W. J., Pittsburg, Allegheny.
Ash, H. St. Clair, Philadelphia.
Ashhurst, Jno. Jr., Philadelphia.
Ashhurst, Samuel, Philadelphia.
Ashmead, Wm., Germantown, Phila.
Ashton, S. K., Germantown, Phila.
Atkinson, Wm. B., Philadelphia.
Atlee, John L., Lancaster, Lancaster.
Atlee, John L., Jr., Lancaster, Lancaster.
Atlee, W. Lemuel, Philadelphia.
Axtell, A. R., Troy, Bradford.
Ayres, Samuel, Dixmont, Allegheny.

Bacon, Daniel, Wellsboro', Tioga.
Bacon, M. L., Wellsboro', Tioga.
Baer, B. F., Philadelphia.
Bailey, Wm. B., Dillsburg, York.
Baker, Frances N., Media, Delaware.
Baker, W. H., Philadelphia.
Baldwin, Mary E., Wellsboro', Tioga.
Baldwin, L. K., Philadelphia.
Ball, Frank P., Salona, Clinton.
Balmer, A. F., Brookville, Jefferson.
Barber, J. Grier, Middleburg, Snyder.
Barber, J. H., Strattonville, Clarion.
Barber, John, Sharon, Mercer.
Barndt, S. K., Alburtis, Lehigh.
Barr, David M., Philadelphia.
Barr, G. W., Titusville, Crawford.
Barr, Robert, Indiana, Indiana.
Bartelson, S. P., Clifton Heights, Del.
Barton, A. A., Plains, Luzerne.
Barton, Isaac, Philadelphia.
Barton, J. M., Philadelphia.
Batten, John M., Pittsburg, Allegheny.
Baur, Joseph, Tamaqua, Schuylkill.
Baxter, H. F., Philadelphia.
Bean, G. W., Bainbridge, Lancaster.
Beane, W. H., Middletown, Dauphin.
Beates, Henry, Philadelphia.

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Beaver, D. B. D., Reading, Berks.
Beaver, D. R., Conshohocken, Montg'y.
Beck, J. N., Sligo, Clarion.
Beebe, Wm. S., Susquehanna Depot, Susquehanna.
Bell, J. R. F., Philadelphia.
Bell, S. D., Barnhart's Mill, Butler.
Benham, Silas N., Pittsburg, Alleg'y.
Benner, Henry D., Philadelphia.
Bennett, Wm. H., Philadelphia.
Benton, S. H., Oil City, Venango.
Berlin, Jas. O., Chapmanville, Northampton.
Bernardy, E. P., Philadelphia.
Berntheizel, G. W., Columbia, Lancaster.
Bertolet, Ed. A., Oley, Berks.
Best, David, Meadville, Crawford.
Beyerle, Geo. W., Bernsville, Berks.
Beyer, W. F., Punxatauney, Jeff.
Biddle, J. C., Shenandoah, Schuylkill.
Bidlack, J. B. W., Philadelphia.
Bigham, James, Allegheny, Allegheny.
Binckley, G. K., Orwigsburg, Schuyl.
Birch, T. J., Port Carbon, Schuylkill.
Birdsall, S., Susquehanna Depot, Susquehanna.
Bischoff, H. W., Halifax, Dauphin.
Bishop, H. M., Sharon, Mercer.
Bishop, W. T. Harrisburg, Dauphin.
Bittinger, J. H., Hanover, York.
Bixler, J. R., Carlisle, Cumberland.
Blachley, B. M., Waynesburg, Greene.
Blachley, O. L., Sparta, Washington.
Blachly, S. L., Sparta, Washington.
Black, M. F., Newry, Blair.
Black, H. M., Strasburg, Lancaster.
Blackwood, T. J., New Castle, Lawrence.
Blackwood, Wm., Lancaster, Lancaster.
Blackwood, W. R. D., Philadelphia.
Blaine, J. E., Tionesta, Forest (Venango).
Blair, Alex. R., York, York.
Blair, J. M., Fleming, Centre.
Blakeslee, W. R., Harford, Susquehanna.
Bland, D. W., Pottsville, Schuylkill.
Bleiler, P. O., Union Station, Lancaster.
Bloom, F. G., Martinsburg, Blair.
Bloom, Homer, Martinsburg, Blair.
Blumberg, A., Pittsburg, Allegheny.
Boal, G. Y., Baden, Beaver.
Bockius, J. A., Columbia, Lancaster.
Boker, Charles S., Philadelphia.
Bolenius, R. M., Lancaster, Lancaster.
Bolling, Rob't, Chestnut Hill, Phila.
Bonebreak, D. W., Martinsburg, Blair.
Bonsteel, A. S., Corry, Erie.
Borden, C. B., Tioga, Tioga.
Borden, H. H., Tioga, Tioga.
Bordner, H. H., McClure, Snyder.
Bottum, A. L., Westfield, Tioga.
Bournonville, Aug. C., Philadelphia.
Bowman, J. D., Harrisburg, Dauphin.
Bowman, John F., Millersburg, Daup'n.
Bowman, J. W., Hoguestown, Cumb'd.
Bowman, R. P., Kittanning, Armstrong.
Boyd, Geo. B., Scranton, Lackawanna.
Boyer, J. H., Shepperdstown, Cumb'd.
Boyles, R. M., Reynoldsville, Jefferson.
Brackbill, Jos., Strasburg, Lancaster.
Braden, D. W., Waynesburg, Greene.
Bradford, T. Hewson, Philadelphia.
Bradley, Chas., Norristown, Montg'my.
Bradley, T. W., Burgettstown, Wash.
Bradner, N. Roe, Philadelphia.
Brady, S H., Lost Creek, Schuylkill.
Brandes, Charles, Erie, Erie.
Brandt, E. B., Mechanicsburg, Cumberland.
Brallier, E., Cherry Tree, Indiana.
Brasee, J. M., Academia, Juniata.
Bredin, Stephen, Butler, Butler.
Brehm, S. H., Newville, Cumberland.
Brehman, G. E., Altoona, Blair.
Breinig, P. B., Bethlehem, Northamp.
Brendle, Geo. F., Mahanoy City, Schuyl.
Brigham, B. L., Franklin, Venango.
Brinton, Daniel G., Philadelphia.
Brinton, John B., West Chester, Chester.
Brinton, John H., Philadelphia.
Brinton, Wm. B., West Chester, Chester.
Brobst, Edward, Leesport, Berks.
Brobst, John A., Bernsville, Berks.
Brooke, John B., Reading, Berks
Brown, Geo. W., Port Carbon, Schuyl.
Brown, Jas. M., McVeytown, Mifflin.
Brown, J. J., Mifflinville, Columbia.
Brown, R. B., Summerville, Jefferson.
Brown, T. M., Sharpsville, Mercer.
Brubaker, D. T., Millerstown, Perry.
Bruce, Geo. D., Pittsburg, Allegheny.
Bruckhart, W. S., Shiremanstown, Cum.
Bruen, E. T., Philadelphia.
Brumbaugh, A. B., Huntingdon, Huntingdon.
Brundage, A. T., Factoryville, Wyoming (Susquehanna).
Brundage F., Conyngham, Luzerne.
Brundage, G. A., Factoryville, Wyoming (Susquehanna).
Bruner, Daniel J., Columbia, Lancaster.
Brush, Jas. A., Sheakleyville, Mercer.
Buchanan, J. G., Allegheny, Allegheny.
Buck, F. J., Philadelphia.
Buck, W. Penn, Philadelphia.
Buckby, Wilson, Philadelphia.
Bulkeley, J. E., Wilkesbarre, Luzerne.
Burchfield, J. P., Clearfield, Clearfield.
Burnett, Chas. H., Philadelphia.
Burnett, J., Carbondale, Lackawanna.
Burns, Robert, Frankford, Phila.
Burns, R. Bruce, Frankford, Phila.
Burns, W. A., Philadelphia.
Burpee, David, Philadelphia.
Burr, Chas., Scranton, Lackawanna.
Burrell, J. L. A., Williamsport, Lyc'g.

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Burton, J. H., Lock Haven, Clinton.
Bushong, Israel, New Holland, Lanc'r.
Buttermore, Smith, Connellsville, Fay'te.
Byers, John E., Butler, Butler.
Byers, John L., Shenandoah, Schuylkill.

Cadwalader, C. E., Philadelphia.
Caldwell, Alex., Philadelphia.
Calhoun, A. J., Gobeenville, Armstrong.
Calhoun, C. P., Centreville, Bedford.
Calvin, A. C., Meadville, Crawford.
Cambridge, C. H., Fleming, Centre.
Campbell, E. B., Williamsport, Lycom'g.
Campbell, R. A., Lewistown, Mifflin.
Canfield, Ira D., Renovo, Clinton.
Cantrell, J. H., Philadelphia.
Carey, E., Prosperity, Washington.
Carey, G. W., East Sandy, Venango.
Carey, R. B., Glenloch, Chester.
Carncross, J. A., Philadelphia.
Carpenter, Henry, Lancaster, Lancaster.
Carpenter, John T., Pottsville, Schuyl.
Carr, A. P., St. Clair, Schuylkill.
Carrell, J. B., Hatboro, Montgomery.
Carson, Thomas, Saltsburg, Indiana.
Carter, J. S., Philadelphia.
Case, A. G., Pittsburg, Allegheny.
Case, Wm. A., Espy, Columbia.
Castle, F. D., Philadelphia.
Cathcart, T. L., York, York.
Chamberlin, A., Brooklyn, Susquehanna.
Chapin, S. F., Wattsburgh, Erie.
Charles, Jacob, Lincoln, Lancaster.
Chase, A. F., Philadelphia.
Cheeseman, Geo., Library, Allegheny.
Chesrown, A. V., Pittsburg, Allegheny.
Chestnut, J. H. W., Philadelphia.
Chrisman, R. S., Pottsville, Schuylkill.
Christie, J. H., Allegheny, Allegheny.
Christie, L. H., Franklin, Venango.
Christy, J. L., Conoquenessing, Butler.
Christy, R. W., Sabbath Rest, Blair.
Christy, T. C., Pittsburg, Allegheny.
Chritzman, H. G., Welsh Run, Franklin.
Church, T. C., Oil City, Venango.
Cisna, W. R., Ickesburg, Perry.
Clagett, L. S., Blairsville, Indiana.
Clagett, W. L., Standing Stone, Bradford.
Clark, A. T., Greenfield, Mercer.
Clark, H. H., Pittsburg, Allegheny.
Clark, L. S., Philadelphia.
Clark, S. G., Centreville, Crawford.
Clark, W. N., Whitestown, Butler.
Clarke, J. T., Erie, Erie.
Clarke, R. W., Dunbar, Fayette.
Clarke, Rowan, Bellwood, Blair.
Claudy, J. C., Newville, Cumberland.
Cleaver, Israel, Reading, Berks.
Cleemann, R. A., Philadelphia.
Clinger, P. S., Conestoga Centre, Lancaster.
Closson, C. H., Altoona, Blair.
Clover, W. M., Lamartine, Clarion.
Coates, Benj. H., Philadelphia.
Coates, Isaac T., Chester, Delaware.
Coblentz, Jos., Reading, Berks.
Cohen, J. Solis, Philadelphia.
Cole, W. W., Allegheny, Allegheny.
Coleman, Wm. C., Latrobe, Westmoreland.
Collins, James, Philadelphia.
Compton, Wm., Lancaster, Lancaster.
Connell, A. J., Scranton, Lackawanna.
Connell, Jas. G., Oakland, Allegheny.
Conrad, I. D., Beavertown, Snyder.
Cook, Jos. L., New Alexandria, Westmoreland.
Cook, W. J., Freeport, Armstrong.
Cooley, T. M., Sandy Lake, Mercer.
Cooper, A. M., Point Pleasant, Bucks.
Cooper, J. C., Philadelphia.
Coover, David H., Harrisburg, Dauphin.
Coover, Eli H., Harrisburg, Dauphin.
Corson, Ellwood M., Norristown, Montgomery.
Corson, Hiram, Plymouth Meeting, Montgomery.
Corson, Wm., Norristown, Montgomery.
Corss, Fred., Kingston, Luzerne.
Coryell, R. H.
Cotterell, J. F., Columbia, Lancaster.
Cotton, John C., Meadville, Crawford.
Coupe, A. F., Oil City, Venango.
Cowan, Frank, Greensburg, Westmore'd.
Cox, A. P., Big Run, Jefferson.
Cox, T. B., Lancaster, Lancaster.
Craig, Alex., Columbia, Lancaster.
Craig, S. A., Freedom, Beaver.
Crandall, G. D., Blossburg, Tioga.
Crandall, J. V., Philadelphia.
Crawford, J. B., Wilkesbarre, Luzerne.
Crawford, J. K., Cooperstown, Venango.
Crawford, J. L., Saltsburg, Indiana.
Crawford, J. S., Taylorstown, Wash.
Crawford, Robert, Cooperstown, Venango.
Cressler, Alonzo L., Wilkesbarre, Luz'e.
Cressler, John, Wilkesbarre, Luzerne.
Cristler, J. H., Stoneboro', Mercer.
Criswell, J. T., Camp Hill, Cumberland.
Criswell, John, New Bethlehem, Clarion.
Cross, A. G., Waynesburg, Greene.
Crowly, T. Stanton, Philadelphia.
Cruice, R. B., Philadelphia.
Cruice, Wm. R., Philadelphia.
Cunningham, D., Wurtemberg, Lawrence.
Cunningham, J. G., Kittanning, Arms'g.
Cunningham, W. N., Jacksonville, Ind.
Curran, Wm., Philadelphia.
Curtin, R. G., Philadelphia.
Curtis, Levi, Philadelphia.
Curwen, John, Harrisburg, Dauphin.

Da Costa, J. C., Philadelphia.
Dale, J. Y., Lemont, Centre.
Dale, W. W., Carlisle, Cumberland.

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Daly, W. H., Pittsburg, Allegheny.
Darling, L., Jr., Lawrenceville, Tioga.
Darlington, Horace, Concordville, Del.
Darrach, Jas., Germantown, Phila.
Davenport, B. H. R., White Haven, Luz.
Davidson, David, Philadelphia.
Davidson, J. H., Perryopolis, Fayette.
Davis, B. H., Ashton, Carbon (Schuyl.).
Davis, B. L., Pittsburg, Allegheny.
Davis, F. F., South Oil City, Venango.
Davis, J. H., Soudersburg, Lancaster.
Davis, M. L., Millersville, Lancaster.
Davis, R., Wilkesbarre, Luzerne.
Davis, Samuel T., Lancaster, Lancaster.
Davis, S. B., Jermyn, Lackawanna.
Davis, Thos. D., East End, Pittsburg, Allegheny.
Davis, U. Q., Milton, Northumberland.
Day, Alfred, Mechanicsburg, Cumberl'd.
Dayton, S. W., Great Bend, Susq.
Dean, G. C., Millerstown, Perry.
Dean, M. H., Wampum, Lawrence.
Deaver, J. M., Buck, Lancaster.
Deisinger, J., Hellam, York.
De La Montanye, L., Towanda, Bradford.
Delancey, Charles, Ickesburg, Perry.
Deshler, E. S., Aaronsberg, Centre.
Detweiler, Saml. B.
Detwiler, B. H., Williamsport, Lyc'g.
DeVinney, S. C., Williamstown, Dauphin.
Dewey, E. H., Meadville, Crawford.
DeWitt, A. T., Snydertown, Northumberland.
DeYoung, Philip, Philadelphia.
Dickeson, W. T. W., Media, Delaware.
Dickson, John, Pittsburg, Allegheny.
Dickson, John S., Pittsburg, Allegheny.
Dickson, Joseph N., Pittsburg, Allegh'y.
Dill, A. B., York Sulphur Sp'g, Adams.
Dille, G. W., Cooperstown, Venango.
Dille, J. M., Cooperstown, Venango.
Dillman, J., Oregon, Lancaster.
Dinwiddie, J. W., Warrior's Mark, Huntingdon.
Donaldson, J. B., Canonsburg, Washing.
Dorworth, E. S., Bellefonte, Centre.
Dougal, C. H., Milton, Northumberland.
Doughty, Wm. E., Hartsville, Bucks.
Drake, E. G., Antrim, Tioga.
Drake, H. H., Norristown, Montgomery.
Drysdale, Thomas M., Philadelphia.
Duer, Edward L., Philadelphia.
Duff, J. M., Pittsburg, Allegheny.
Duhring, L. A., Philadelphia.
Dulles, Chas. W., Philadelphia.
Duncan, J. A., Pittsburg, Allegheny.
Duncan, J. L., Pittsburg, Allegheny.
Duncan, W. S., Brownsville, Fayette.
Dundor, A. B., Reading, Berks.
Dunglison, Richard J., Philadelphia.
Dunigan, M. C., Titusville, Crawford.
Dunlap, J. F., Manheim, Lancaster.
Dunmire, Geo. B., Philadelphia.
Dunn, J. C., Pittsburg, Allegheny.
Dunn, J. M., Mackeyville, Clinton.
Dusenberry, C. S., Le Raysville, Bradford.
Dwight, M. B., Jersey Shore, Lycoming.
Dyer, Ezra, Pittsburg, Allegheny.

Eagleson, D. S., West Alexander, Washington.
Eagleson, J. S., Meadville, Crawford.
Earley, C. R., Earley, Elk (Lycoming).
Eastman, Henry, Merrittstown, Fayette.
Easton, A., Allegheny City, Allegheny.
Eby, James B., Newport, Perry.
Eck, W. H., Boyertown, Berks.
Egbert, T. W., Oil City, Venango.
Ehler, J. Aug., Lancaster, Lancaster.
Eisaman, C. D. B., Adamsburgh, Westmoreland.
Eisenberg, Philip Y., Norristown, Montgomery.
Elderdice, R. B., McKnightstown, Adams.
Elliott, C. V., Mansfield, Tioga.
Elliott, J. S., Beaver Falls, Beaver.
Elliott, Thos., Greenfield, Mercer.
Ely R. H., Laceyville, Bradford.
Emack, F. D., Trackville, Schuylkill.
Emmerling, C., Pittsburg, Allegheny.
Emory, Boyd, Dunningsville, Wash.
Enfield, A., Clearville, Bedford.
Engel, Hugo, Philadelphia.
Engelman, David, Easton, Northampton.
Engelman, Jos. B., Cherryville, North'n.
Eppley, G. W., Marysville, Perry.
Erdman, F. C., Centre Valley, Lehigh.
Erdman, J. D., Macungie, Lehigh.
Erdman, Wm. B., Macungie, Lehigh.
Eshleman, Emory, Philadelphia.
Eshleman, Isaac S., Philadelphia.
Estep, W. J., Pittsburg, Allegheny.
Evans, Benj. F., Clark's Green, Lackawanna.
Evans, Edwin L., Philadelphia.
Evans, Horace, Philadelphia.
Evans, I. Newton, Hatborough, Montgomery.
Evans, J. R., Bloomsburg, Columbia.
Evans, T. R., Pittsburg, Allegheny.
Evans, W. C., Erie, Erie.
Everett, E. A., Burlington, Bradford.
Everhart, J. F., Scranton, Lackawanna.
Ewing, J. B., Uniontown, Fayette.
Ewing, R. B., West Grove, Chester.

Farquhar, Q. C., East Bethlehem, Wash.
Faulkner, R. B., Allegheny, Allegheny.
Faulds, W. H., Mill Hollow, Luzerne.
Fay, John, Altoona, Blair.
Feicht, B., Economy, Beaver.
Feldstein, A., Philadelphia.
Fenton, Thos. H., Philadelphia.
Fetzer, D. A., Lumber City, Clearfield.

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Fife, J. R., Pittsburg, Allegheny.
Filewood, F., Susquehanna Depot, Susquehanna.
Findley, Wm. M., Altoona, Blair.
Fischer, Emil, Philadelphia.
Fishburne, J. H., Lock Haven, Clinton.
Fisher, C. H., Scranton, Lackawanna.
Fisher, P. S., Zion, Centre.
Fisk, Ansel J., Tioga, Tioga.
Fitzgerald, J. M., Lamartine, Clarion.
Fleming, A., Pittsburg, Allegheny.
Fleming, W. L., Franklin, Venango.
Fleming, Wm. J., Philadelphia.
Flickenger, J. H., Dry Run, Franklin.
Floyd, Jno. B., Belleville, Mifflin.
Fœtherolf, A. P., Litzenburgh, Lehigh.
Follmer, John S., Milton, Northumberland.
Forwood, J. F. M., Chester, Delaware.
Foster, D. Gilmore, Crafton, Alleg'y.
Foster, Wm., St. Petersburg, Clarion.
Foster, W. S., Pittsburg, Allegheny.
Foulke, Jos., Buckingham, Bucks.
Foust, J. W., Reynoldsville, Jefferson.
Fox, G. T., Bath, Northampton.
Francis, W. R., Westfield, Tioga.
Fugate, S., Post Matilda, Centre.
French, Morris S., Philadelphia.
Frey, Levi, Glen Rock, York.
Frick, Wm. S., Philadelphia.
Frické, Albert, Philadelphia.
Frischkorn, Chas., Moscow, Lacka'na.
Fritz, C. D., Hilltown, Bucks.
Fulk, Levi, New Kingston, Cumberland.
Fuller, Smith, Uniontown, Fayette.
Fulton, Jas., New London, Chester.
Fulton, T. H., Sandy Lake, Mercer.
Fundenberg, W. F., Pittsburg, Alleg'y.
Fussell, Edwin, Media, Delaware.
Fussell, Linnæus, Media, Delaware.
Fussell, R. L., Media, Delaware.

Gable, J. C., York, York.
Gaddis, L. S., Uniontown, Fayette.
Gallaher, T. J., Pittsburg, Allegheny.
Gardner, E. L., Montrose, Susquehanna.
Gardner, B. F., Bloomsburg, Columbia.
Garretson, James E., Philadelphia.
Garver, Chas., Scotland, Franklin.
Gayley, Jas. F., Philadelphia.
Gemmill, J. M., Jr., Tyrone, Blair.
Gerhard, G. A., Ardmore, Montgomery.
Gerhardt, J. Z., Harrisburg, Dauphin.
Getchell, F. H., Philadelphia.
Gibbs, J. W., Hyde Park, Scranton, Lackawanna.
Gibbs, L. H., Hyde Park, Scranton, Lackawanna.
Gibson, W. M. B., Reynoldsville, Jeffer.
Giebner, E. X., Sandy Lake, Mercer.
Gilbert, J. E., Gettysburg, Adams.
Gilbert, S. F., Elysburg, Northumberl'd.
Gilbert, Wm. Kent, Philadelphia.
Gillaud, J. C., Greencastle, Franklin.
Gillespie, C. E., Freeport, Armstrong.
Gillett, B., Franklin, Venango.
Gilliford, R. H., Allegheny, Allegheny.
Girvin, Edwin R., Philadelphia.
Girvin, Robert M., Philadelphia.
Gittings, J. B. H., Philadelphia.
Given, Robert A., Clifton Heights, Del.
Glacken, M., Green, Lancaster
Glenn, J. B., Pittsville, Venango.
Glenn, Geo., Jr., Cornwall, Lebanon (Schuylkill).
Glenn, J. P., Snow Shoe, Centre.
Glenwood, Greene J., Jr., Pittsburg, Alle.
Good, F. H., Reading, Berks.
Goodell, Wm., Philadelphia.
Gorgas, S. R., Harrisburg, Dauphin.
Gotwald, A. G., Pen Argil, Northampton.
Graham, F. R., Chester, Delaware.
Graham, Jas., Philadelphia.
Graham, Samuel, Butler, Butler.
Granger, Locke, Lawrenceville, Tioga.
Grauel, George, Danville, Montour.
Gray, T. H., Erie, Erie.
Green, G. Dillwyn, Linwood, Delaware.
Green, Traill, Easton, Northampton.
Green, Wm. N., Glenwood, Susquehanna.
Greene, J. J., Pittsburg, Allegheny.
Greene, Wilson, Geneva, Fayette.
Greenlee, D R., Meadville, Crawford.
Griffin, G. D.
Griffin, J. K., North East, Erie.
Griffith, D. S., Bedford, Bedford.
Grimes, Jos. B., Pittsburg, Southside, Allegheny.
Griswold, E., Sharon, Mercer.
Groff, Chas. A., Philadelphia.
Grooms, J. B., Brownsville, Fayette.
Gross, F. H., Philadelphia.
Gross, Samuel D., Philadelphia.
Gross, Samuel W., Philadelphia.
Grove, Geo., Big Spring, Cumberland.
Grove, John H., Philadelphia.
Gruver, S. J., Portland, Northampton.
Guiteras, John, Philadelphia.
Guldin, B. C., Minersville, Schuylkill.
Guss, Isaac, Cassville, Huntingdon.
Guthrie, G. W., Wilkesbarre, Luzerne.

Hakes, Harry, Wilkesbarre, Luzerne.
Halbauer, T. K., St. Clair, Schuylkill.
Halberstadt, A H., Pottsville, Schuyl.
Hale, E. W., Bellefonte, Centre.
Hall, A. Douglass, Philadelphia.
Hall, John C., Philadelphia.
Hall, L. Brewer, Philadelphia.
Hall, L. G., North East, Erie.
Halsey, C. C., Montrose, Susquehanna.
Hamell, B. F., Philadelphia.
Hamilton, B. F., Emlenton, Venango.
Hamilton, G. W., Erie, Erie.
Hamilton, George, Philadelphia.
Hamilton, Hugh, Harrisburg, Dauphin.

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Hand, D. B., Scranton, Lackawanna.
Harder, C. S., Rohrsburg, Columbia.
Harlan, Geo. C., Philadelphia.
Harlow, Lewis D., Philadelphia.
Harper, David, Karns City, Butler.
Harris, Geo. F., Bellefonte, Centre.
Harrison, Geo. M., Fairdale, Susquehanna.
Harshberger, A., Milroy, Mifflin.
Harshberger, A. S., Milroy, Mifflin.
Hart, Jacob, York, York.
Hartman, Paul A., Harrisburg, Dauphin.
Hartswick, J. G., Clearfield, Clearfield.
Hartzell, E., Fayetteville, Franklin.
Harvey, Ellwood, Chester, Delaware.
Harvey, O. F., Wilkesbarre, Luzerne.
Hassler, James P., Cochranton, Crawford.
Hatfield, Nathan, Philadelphia.
Hatfield, N. L., Philadelphia.
Hawkins, John, Uniontown, Fayette.
Hay, Jacob, York, York.
Hay, John W., Harrisburg, Dauphin.
Hay, Thomas, Philadelphia.
Hays, D. D., Shippensburg, Cumberl'd.
Hays, D. S., Hollidaysburg, Blair.
Hays, R. C., Shippensburg, Cumberl'd.
Hays, R. M., Newville, Cumberland.
Hayes, Thos. R., Bellefonte, Centre.
Hayward, Henderson, Chadd's Ford, Chester.
Hazel, F. B., Philadelphia.
Hazlett, J. C., Bellevernon, Fayette.
Hearn, Jos., Philadelphia.
Heath, Wm. H., Hyde Park, Scranton, Lackawanna.
Heckelman, H. W., Allegheny, Allegh'y.
Heermans, E. A., Hyde Park, Scranton, Lackawanna.
Heggie, A. J., Osceola, Tioga.
Heiber, J. H., Pittsburg, Allegheny.
Heistand, A. M., Millersville, Lancaster.
Heilman, S., Sharon, Mercer.
Hellyer, Edwin, Philadelphia.
Helsby, Thomas H., Williamsport, Lycoming.
Henderson, J. D. W., Malvern, Chester.
Hengst, D. A., Pittsburg, Allegheny.
Henlen, B. A., North Hope, Butler.
Henry, F. P., Philadelphia.
Henry, J. A., Punxatauney, Jefferson.
Herbst, Wm B., Trexlertown, Lehigh.
Hering, E. A., Waynesboro', Franklin.
Herman, A. J., Carlisle, Cumberland.
Hermann, Perc., Kratzerville, Snyder.
Hermany, P., Mahanoy City, Schuylkill.
Herr, A. J., Lancaster, Lancaster.
Herr, B. F., Millersville, Lancaster.
Herr, M. L., Lancaster, Lancaster.
Herron, W. M., Allegheny, Allegheny.
Hertz, J. K., Litiz, Lancaster.
Hess, R. J., Philadelphia (Northampton).
Hewson, Addinell, Philadelphia.
Heyl, Albert G., Philadelphia.
Hibler, Augustus, Bellefonte, Centre.
Hickman, N., Philadelphia.
Higgins, P. J., Providence, Lackawanna.
Hill, Geo., Hughesville, Lycoming.
Hill, H. Howard, Everett, Bedford.
Hill, T. B., Ruff's Creek, Greene.
Hilliard, J. H., Richardsville, Jefferson.
Hillier, J. W., West Middlesex, Mercer.
Hinchman, W. A., Dry Run, Franklin.
Hine, E. C., Philadelphia.
Hines, E. P., Friendsville, Susquehanna.
Hinkle, A. G. B., Philadelphia.
Hodge, H. Lenox, Philadelphia.
Hoffa, J. P., Washingtonville, Montour.
Hoffmann, K. M., Clintonville, Venango.
Holahan, John F., York, York.
Holloway, L. M., Salma, Clinton.
Holly, S. L., Nanticoke, Laurence.
Holt, J. F., Philadelphia.
Homet, Volney, Camptown, Bradford.
Hooke, B. P., Loysville, Perry.
Hooper, Wm. H., Philadelphia.
Hoover, N. M., North Hope, Butler.
Hopkins, Benj. C., Dunmore, Lackaw'a.
Hopkins, Ephraim, Marshalton, Chester.
Horner, Caleb W., Philadelphia.
Horner, Chas., Gettysburg, Adams.
Horner, E. H., Turbutsville, North'mb.
Horner, Joseph H., Thornton, Delaware.
Horner, Robert, Gettysburg, Adams.
Horst, M. W., Earlville, Lancaster.
Horton, Geo. F., Terrytown, Bradford.
Hosack, J. P., Mercer, Mercer.
Hosack, Wm., West Lebanon, Leb'n (Indiana).
Hoskins, John R., West Chester, Chester.
Hoskins, Percy, Milltown, Chester.
Hotchkiss, S. B., Edinborough, Erie.
Hottenstein, C. D., Philadelphia.
Houge, D. A., Hontzdale, Clearfield.
Houpt, Fred. L., Sunbury, Northumberland.
Houser, J. W., Taylorville, Lackawanna.
Houston, J. Willie, Homeville, Chester.
Howard, A. W., Bendersmith, Adams.
Howell, W. M., Cogan Station, Lycom'g.
Howland, C. A., Shippensburg, Cumberland.
Hudson, M. F., Belleville, Mifflin.
Huffman, D. C., Pittsburg, Allegheny.
Hughes, John W., Blairsville, Indiana.
Hughes, M. B., Shickshinny, Luzerne.
Hull, A. P., Montgomery, Lycoming.
Hull, G. S., Chambersburg, Franklin.
Hull, Thos. R., Milton, Northumberland.
Hull, W. C., Monroeton, Bradford.
Hull, Wm. R., Williamsport, Lycoming.
Hummel, C. C., Mechanicsburg, Cumberland.
Humphrey, Wm. T., Osceola, Tioga.
Humphreys, G. L., Irvin, Westmoreland.
Hunsberger, Wm. E., Maiden Creek, Berks.

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Hunt, J. S., Easton, Northampton.
Hunt, Wm., Philadelphia.
Hunter, Chas. T., Philadelphia.
Hunter, J. H., Watsontown, Northumberland.
Hunter, R. P., Leechburg, Armstrong.
Hunter, William A., Upper Strasburg, Franklin.
Huston, J. H., Clintondale, Clinton.
Hurlbut, C. S., Lewistown, Mifflin.
Huselton, W. S., Allegheny City, Alle.
Hutchinson, Jas. H., Philadelphia.
Hutton, J. C., Harrisburg, Dauphin.

Ingram, Nelson, Blossburg, Tioga.
Ingram, T. D., Westchester, Chester.
Irwin, Crawford, Hollidaysburg, Blair.
Irwin Robb, Hollidaysburg, Blair.
Irwin, W., Breakneck, Butler.
Ivison, John, Philadelphia.

Jackson, Edward, West Chester, Chester.
Jackson, Homer, Utica, Venango.
Jackson, Isaac, Brownsville, Fayette.
Jackson, P. D., New Castle, Lawrence.
Jacob, Harry, Altoona, Blair.
Jacobs, Geo. L., Harrisburg, Dauphin.
Jacobs, W. A., Centre Hall, Centre.
James, J. T., Waynesburg, Greene.
Janney, Wm. S., Philadelphia.
Jefferis, D. W., Media, Delaware.
Jenks, W. F., Philadelphia.
Jennings, Wm. H., Arnot, Tioga.
Jessop, C. J., Kittanning, Armstrong.
Johnson, F. H., Utica, Venango.
Johnson, Russell H., Philadelphia.
Johnson, Samuel C., Greenville, Clarion (Jefferson).
Johnson, T. B., Towanda, Bradford.
Johnston, J. B., Allegheny, Allegheny.
Johnston, J. W., Sarah P. O., Blair.
Johnston, Thos. L., Duncannon, Perry.
Jones, H. I., Hyde Park, Scranton, Lackawanna.
Jones, L. A., New Era, Bradford.
Judd, L. D., Philadelphia.

Kain, John B., Manchester, York.
Kamerer, J. W. B., Greensburgh, Westmoreland.
Kanawell, J. F., Perrie's Creek, Snyder
Keating, John M., Philadelphia.
Keating, W. V., Philadelphia.
Keiffer, S. B., Carlisle, Cumberl'd.
Keller, D. C., Union Deposit, Dauphin.
Keller, D. H., Union Deposit, Dauphin.
Kendig, B. F., Salunga, Lancaster.
Kennedy, Alfred L., Philadelphia.
Kennedy, D. D., Oxford, Chester.
Kerlin, Isaac N., Media, Delaware.
Kern, P. M., Bath, Northampton.
Kerr, Geo., Philadelphia.
Kerr, Jas. W, York, York.
Kerr. J. W., Allegheny, Allegheny.
Keyser, Peter D., Philadelphia.
Kibler, Chas. B., Corry, Erie.
Kifer, L. M., Irwin Station, Westmoreland
Kilbourn, H. R., West Franklin, Bradford.
King, C B., Allegheny City, Allegheny.
King, J C., Reynoldsville, Jefferson.
King, J. H., Saxonburg, Butler.
Kirkbride, M. F., Philadelphia.
Kirkbride, Thos. S., Philadelphia.
Kirker, John, Allegheny City, Allegheny.
Kistler, E. H., Summit, Carbon (Schuylkill).
Kistler, W. K., Germonsville, Lehigh.
Klapp, Joseph, Philadelphia.
Kline, L. B., Catawissa, Columbia.
Kline, Wm. O., Jr., Philadelphia.
Klingensmith, I. P., Derry Sta. Westm'ld.
Knapp, C. B., Stevensville, Bradford.
Knapp, Chas P., Wyoming, Luzerne.
Knecht, C., Easton, Northampton.
Knight, Samuel R., Philadelphia.
Knipe, Jacob O., Norristown, Montg'ry.
Knox, Wm. F., McKeesport, Allegheny.
Koch, J. G., Petersville, Northampton.
Kœller, Frank, Pittsburg, Allegheny.
Kohler, J., New Holland, Lancaster.
Koser, S. S, Tremont, Schuylkill.
Kratz, Harvey, Hilltown, Bucks.
Krause, J. H., Plumsteadville, Bucks.
Krise, C. W., Carlisle, Cumberland.
Kroesen, W. B., Ætna Boro', Allegheny.
Kuhn, L. DeB., Reading, Berks.
Kurtz, S. L., Reading, Berks.

Lachenour, H. D., Easton, Northampton.
Lackey, H. P, Providence, Lackawanna.
Ladd, C K., Towanda, Bradford.
Ladd, Horace, Scranton, Lackawanna.
Laidley, J. B., Carmichaels, Greene.
Lamb, F. D., Great Bend Village, Susq.
Lane, Samuel G., Chambersburg, Frank.
Langfitt, W. J., Alleg'y, Alleg'y (Beaver).
Larimer, W. T., West Lebanon, Ind.
Laubach, Stephen, Easton, Northampt'n.
Lauman, W. H., Mt. Holly Springs, Cumberland.
Lawall, L. H., Bethlehem, Northampton.
Leadenham, J. W., Eidenberg (Knox P. O.), Clarion.
Leaman, B., Leaman Place, Lancaster.
Leaman, Henry, Philadelphia.
Leberknight, B. F., Newburg, Cumberland.
Lecron, J. P., Arndtsville, Adams.
Lee, Benjamin, Philadelphia.
Lee, B. R., Reading, Berks.
Lee, J. W., Pittsburg, Allegheny.
Lee, R. H., Philadelphia.
Leedom, Edwin C., Plymouth Meeting, Montgomery.

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Leet, F. H., Greenville, Mercer.
Leffman, Henry, Philadelphia.
Legge, J. H., Pittsburg, Allegheny.
Leidy, Joseph, Philadelphia.
Leidy, Philip, Philadelphia.
Leiser, J. J., Watsontown, Northumb'ld.
Leitzell, J. B., Spring Mills, Centre.
Le Moyne, F., Pittsburg, Allegheny.
Lenher, C., Buckhorn, Columbia.
Lenher, L. H., Mechanicsburg, Cumberland.
Levan, J. R., Philadelphia.
Levis, Richard J., Philadelphia.
Lewis, J. A., Brackneyville, Susq.
Life, Henry, McEwensville, Northum'b.
Lightner, J. M., Ephrata, Lancaster.
Lincoln, S. W., Nelson, Tioga.
Lindley, L., Connellsville, Fayette.
Lineaweaver, J. K., Columbia, Lancaster.
Linn, Geo. A., Monongahela City, Wash.
Linville, M., New Castle, Lawrence.
Lippincott, J. A., Pittsburg, Allegheny.
Little, Jos. H., Washington, Wash.
Littlefield, J. D., Titusville, Crawford.
Livingston, J. B., W. Middlesex, Mercer.
Livingston, T. M., Mountville, Lancast.
Lochman, Luther M., York, York.
Long, Alfred, York, York.
Long, Chas., St. Clairsville, Bedford.
Long, Hiram, Sunbury, Northumberland
Longsdorf, W. H., Dickinson, Cumber'ld.
Longstreth, M. Fisher, Sharon Hill, Del.
Loop, A. M., Nelson, Tioga.
Loop, D. D., North East, Erie.
Lopez, Jcs. H., Philadelphia.
Lovett, Arthur S., Erie, Erie.
Lowson, J. C., Corsica, Clarion.
Lowson, T. C., Brookville, Jefferson.
Loose, C. G., Centreport, Berks.
Ludlow, J. L., Philadelphia.
Lumley, E. D., Williamsport, Lycoming.
Lusk, Jos. S., Harmony, Butler.
Lyman, J. W., Towanda, Bradford.
Lyon, Chas. L., Montourville, Lycoming.
Lyon, Edward, Williamsport, Lycoming.
Lyon, Thomas, Williamsport, Lycoming.
Lyons, Wm., Philadelphia.
Lytle, G. E., Monongahela City, Wash.

McAdam, Alex. H., Philadelphia.
McArthur, John A., Philadelphia.
McBride, C. F., Baldwin, Butler.
McCaa, D. C., Ephrata. Lancaster.
McCall, C. A., Philadelphia.
McCandless, J. G., Pittsburg, Allegheny.
McCann, Jas., Pittsburg, Allegheny.
McCarrel, D., Hickory, Washington.
McCarrell, Jas., Allegheny City, Alleg'y.
McCarrett, J. P., Eldersville, Wash.
McCleary, J. P., Milton, Northumb'd.
McClelland, Cochran, Philadelphia.
McClosky, J. B., Mill Hall, Clinton.
McClure, Jno. P., Watsontown, North'b.
McCombs, R. S., Philadelphia.
McConaughy, D. W., Latrobe, Westmoreland.
McConaughy, Jas., Mt. Pleasant, Westmoreland.
McConaughy, Robt., Scott Dale, Westmoreland.
McConnell, H. S., New Brighton, Beaver.
McCormick, H. G., Montoursville, Lycoming.
McCormick, J. C., Pittsburg, Allegheny.
McCoy, A. W., Pittsburg, Allegheny.
McCoy, Gilbert R., Doylestown, Bucks.
McCracken, G. Y., Philadelphia.
McCrea, C. S., Newville, Indiana.
McCready, J. A., Pittsburg, Allegheny.
McCready, R. J., Allegheny City, Alle'y.
McCrystal, Jno., Minersville, Schuylkill.
McCullough, T. C., Oil City, Venango.
McCurdy, R. L., Freeport, Armstrong.
McDonald, Nesbit, Pittsburg, Alleg'y.
McDonough, H. H., Vanceville, Wash.
McElrath, J. B., Satterfield, Mercer.
McElree, A. S., Washington, Washing'n.
McElroy, B. F., Philadelphia.
McElroy, J., Hickory, Washington.
McFerran, Jas. A., Philadelphia.
McGargle, O. A., Orangeville, Columbia.
McGill, Peter, Williamstown, Dauphin.
McGowen, H., Harrisburg, Dauphin.
McIntire, Chas., Jr., Easton, North'ton.
McKean, John A., Washington, Wash.
McKee, G. W., Warren Centre, Bradford.
McKee, J. C., Princeton, Lawrence.
McKee, J. W., Slate-lick, Armstrong.
McKelvey, W. H., Pittsburg, Allegheny.
McKelvy, J. B., Bloomsburg, Columbia.
McKennan, H. S., Washington, Wash.
McKennan, Thos., Washington, Wash.
McKenzie, Wm., West Conshohocken, Montgomery.
McKibben, David J., Ashland, Schuyl.
McKinney, D., Jr., New Brighton, Beav.
McKinnon, M. J., York, York.
McLallin, Stephen, Elk City, Clarion.
McLanahan, T. J., Chambersburg, Franklin.
McLean, H. D., Philadelphia.
McMichael, Josiah, Barnhart's Mill, Butler.
McMillan, J. B., Clintonville, Venango.
McMorris, Noble C., Duncannon, Perry.
McMullen, Jas., Mechanicsburg, Ind.
McMullen, Thos., Greenville, Indiana.
McMurray, Andrew S., Philadelphia.
McNeil, Geo. W., Pittsburg, Allegheny.
McPheters, W. D., Hookstown, Beaver.
McRean, Thomas A., Philadelphia.
McReynolds, H. W., Bloomsburg, Columb.
McVicker, J. P., Williamsport, Lycom'g.
Mabon, Thos., Allegheny City, Alleg'y.
Mackey, N. C., Springville, Susqueh'na.
Mackres, H. O., Corry, Erie.

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Magill, Wm. H., Danville, Montour.
Mahon, Jos. T., Newton Hamilton, Mif'in.
Maine, Geo. D., Mainesburg, Tioga.
Mann, Chas., Bridgeport, Montgomery.
March, Daniel, Pittsburg, Allegheny.
Marks, John J., Lewistown, Mifflin.
Marks, S. D., Callensburg, Clarion.
Marland, J. T., Shelocta, Indiana.
Marquis, D. S., Rochester, Beaver.
Marsh, F. L., Mt. Pleasant, Westmor'd.
Marsh, W. G., Watsontown, Northumberland.
Marshall, R. P., Mahoning, Armstrong.
Martin, A. J., Allentown, Lehigh.
Martin, Chas. M., Sunbury, Northumb.
Martin, E. G., Allentown, Lehigh.
Martin, H. G., Cherry Flats, Tioga.
Mass, G. W., Kirby, Greene.
Massey, Isaac, West Chester, Chester.
Masten, James, Westfield, Tioga.
Mathews, Franklin, Temple, Berks.
Mathews, Jas. M., Temple, Berks.
Mathiot, H. B., Smithfield, Fayette.
Matson, C. M., Brookville, Jefferson.
Matson, W. F., Brookville, Jefferson.
Mausteller, J. D., Danville, Montour.
Maxwell, J. K., Worthington, Armstrong.
Mayer, Edw. R., Wilkesbarre, Luzerne.
Mayer, I. H., Willowstreet, Lancaster.
Mays, Thos. J., Upper Lehigh, Luzerne.
Meals, E. S., Harrisburg, Dauphin.
Meals, N. M., Callensburg, Clarion.
Meals, S. D., Callensburg, Clarion.
Means, W. A., DuBois, Clearfield.
Mears, G. W., Numidia, Columbia.
Mehard, Jas. W., Mercer, Mercer.
Mehard, S. S., Mercer, Mercer.
Meigs, John Forsyth, Philadelphia.
Meisenhelter, Edw. W., York, York.
Melhorn, E., New Chester, Adams.
Mellersch, A., Lower Merion, Montg'ry.
Meloney, J. M., Allegheny, Allegheny.
Meloy, A. P., Renovo, Clinton.
Melsheimer, E. L., Davidsburg, York.
Merklein, C. H., Chambersburg, Franklin.
Meschter, Geo. K., Centre Point, Montgomery.
Metz, A. H., Springdale, Allegheny.
Meyer, L. G., Pardoe, Mercer.
Miller, A. M., Bird-in-Hand, Lancaster.
Miller, Chris. H, Philadelphia.
Miller, D. P., Huntingdon, Huntingdon.
Miller, E. J., Rays Hill, Bedford.
Miller, E. S., Altoona, Blair.
Miller, J. H.
Miller, O. L., Allegheny City, Allegheny.
Miller, S. G., Everett, Bedford.
Miller, W. N., Pittsburg, Alleg'y.
Miles, J. H., Milton, Northumberland.
Milligan, J. D., Madison, Westmoreland.
Milliken, D. B., Landisburg, Perry.
Milliken, J. L., Carmichaels, Greene.
Milner, R. H., Chester, Delaware.
Mills, Charles K., Philadelphia.
Mills, Edward, Ulster, Bradford.
Mingle, D. H., Millheim, Centre.
Minnich, A. K., Philadelphia.
Mish, Geo. F., Middletown, Dauphin.
Mitchell, E. E., Montrose, Susquehanna.
Mitchell, S. Weir, Philadelphia.
Mitcheltree, Wilson, Edenburg, Lawrence.
Mixsell, Jos., Easton, Northampton.
Montgomery, E. E., Philadelphia.
Montgomery, John, Chambersburg, Franklin.
Moody, Benj., Mansfield, Tioga.
Moody, G. O., Titusville, Crawford.
Moody, H. Mont., Smithfield, Bradford.
Moon, Wm. P., Philadelphia.
Moore, E. W., Franklin, Venango.
Moore, J. E., Emlenton, Venango.
Moore, Jas. W., Easton, Northampton.
Morehouse, Geo. R., Philadelphia.
Morey, J., Royersford, Montgomery.
Morris, J. Cheston, Philadelphia.
Morrison, M. P., Monongahela City, Washington.
Morrison, T. S., Coatesville, Chester.
Morrow, J. J., Sheakleyville, Mercer.
Morrow, J. W., Marchant, Indiana.
Morrow, W. L., Freeport, Armstrong.
Moss, G. W., Kirby, Greene.
Mosser, E. N., Mechanicsburg, Cumberland.
Mosser, M. B., Mechanicsburg, Cumberland.
Mossman, B. E., Greenville, Mercer.
Mothersbaugh, H. H., Beach Creek, Clinton.
Mowry, J. L., Conestoga Centre, Lan.
Mowry, R. B., Allegheny City, Alleg'y.
Muhlenberg, Wm. F., Reading, Berks.
Mumma, E. W., Bendersville, Adams.
Murdock, J. B., Pittsburg, Allegheny.
Murphy, J. A., Wilkesbarre, Luzerne.
Murray, F. M., Lenni, Delaware.
Musgrove, C. W., Lock Haven, Clinton.
Musser, Benj., Strasburg, Lancaster.
Musser, F. M., Witmer, Lancaster.
Musser, H. E., Chestnut Level, Lancaster.
Musser, J. H., Lampeter, Lancaster.
Musser, J. N., Philadelphia.
Musser, P. T., Aaronsburg, Centre.

Nancrede, Chas. B., Philadelphia.
Nash, Joseph D., Philadelphia.
Nebinger, Andrew, Philadelphia.
Neff, Geo. W., Masontown, Fayette.
Neff, P. D., Centre Hall, Centre.
Neely, J. W., Pittsburg, Allegheny.
Neiman, H. Y., Little Oley, Berks (Montgomery).
Nelan, J. R., Brownsville, Fayette.

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Ness, Jas. S., Philadelphia.
Newbaker, J. B., Treverton, Northumberland.
Newcomet, H. W., Philadelphia.
Newton, D. N., Towanda, Bradford.
Newton, F. G., Towanda, Bradford.
Neyman, A. M., Butler, Butler.
Nicholson, W. A., Summit City, Venango.
Nipple, H M., Freeburg, Snyder.
Noble, Wm. P., Upton, Franklin.
Noel, A., Bonneaville, Adams.
Nolan, Edward J., Philadelphia.
Nutt, G. D., Williamsport, Lycoming.

O'Connor, H. R., Pittsburg, Allegheny.
O'Farrell, G. D., Philadelphia.
Offutt, Lemuel, Penn Station, Westmoreland.
Ogleby, Jas., Danville, Montour.
O'Hara, Michael, Philadelphia.
Olig, John, Woodbury, Bedford.
Oliver, Chas. A., Philadelphia.
O'Neal, J. W. C., Gettysburg, Adams.
O'Neal, Walter H., Parsons, Luzerne (Adams).
O'Neil, J. J., Philadelphia.
Orris, H. O., Newport, Perry.
Orth, H. L., Harrisburg, Dauphin.
Osler, Owen, Philadelphia.
Ott, Isaac, Easton, Northampton.
Owens, Wm. R., Ashland, Schuylkill.
Ozias, H. W., Philadelphia.

Packard, John H., Philadelphia.
Packer, Nelson, Wellsboro', Tioga.
Paine, Chas. F., Troy, Bradford.
Palmer, C. T., Pottsville, Schuylkill.
Pancoast, Joseph, Philadelphia.
Pancoast, Wm. H., Philadelphia.
Parish, W. H., Philadelphia.
Parke, A. G. B., Gap, Lancaster.
Parr, G. W., Clintonville, Venango.
Partenheimer, J. R., Philadelphia.
Partridge, C. L., Ridley Park, Delaware.
Patten, N. N. P., Pittsburg, Allegheny.
Patton, A. B., Jefferson, Greene.
Patterson, J. A., Zollarsville, Washin'ton.
Payne, E. D., Towanda, Bradford.
Peale, J. Burd, Philadelphia.
Pearson, J. S., Philadelphia.
Pearson, J. W., York Sulphur Springs, Adams.
Peck, C. E., Barnhart's Mill, Butler.
Peeples, H. P., New Castle, Lawrence.
Peltz, Josiah, Philadelphia.
Pennepacker, H., Harford, Susquehan'a.
Pepper, Wm., Philadelphia.
Perdue, Wm. R., Unionville, Chester.
Perkins, F. M., Philadelphia.
Perkins, E. S., Philadelphia.
Pflueger, C. P., Seidersville, Northamp'n.
Pfouts, G. J., Jersey Shore, Lycoming.
Phelps, W. C., Philadelphia.
Philips, E. S., Tower City, Schuylkill.
Phillips, C. M.
Phillips, E., Connelsville, Fayette.
Phillips, Jno. S., Allegheny City, Alle'y.
Phister, Benjamin, Philadelphia.
Pickett, M., Corry, Erie.
Pier, W. F., Pleasant Valley, Lacka'na.
Pierson, J. S., Philadelphia.
Pillow, R. H., Butler, Butler.
Plank, D. A., St. Clairsville, Bedford.
Plank, E , Christianna, Lancaster.
Pollock, A. M., Pittsburg, Allegheny.
Pollock, Jas. K., New Castle, Lawrence.
Porter, S. S., Meadville, Crawford.
Porter, Wm. G., Philadelphia.
Prall, C. R., Philadelphia.
Prevost, L. M., Buck, Mt. Carbon (Schuylkill).
Price, Jacob, West Chester, Chester.
Price, L. J.
Price, Mordecai, Philadelphia.
Priestley, Jos., Northumberland.
Purdy, M. E., Montanden, Northumb'ld.
Purington, A. F., Indiana, Indiana.
Pursell, Isaac, Danville, Montour.
Purviance, Geo., Pittsburg, Allegheny.
Purvis, W. I., Etna P. O., Allegheny.
Putt, M. O., Churchville, Dauphin.

Quail, Chas. E., Auburn, Schuylkill.
Quick, P. A., Sugar Run, Bradford.

Rahauser, Geo. G., Pittsburg, Allegh'y.
Rahter, C. A., Harrisburg, Dauphin.
Raker, H. M., Augusta, Northumb.
Ralston, R. G., Middlesex, Armstrong.
Ramsay, R. N., Mahanoy City, Sch.
Ramsay, R. W., St. Thomas, Franklin.
Randall, A. Z., Erie, Erie.
Radebaugh, J. M., Gettysburg, Adams.
Randenbush, Abr'm M., Adamstown, Lancaster (Berks).
Rankin, D. N., Allegheny City, Allegh'y.
Rankin, M. M., Rockdale Mills, Jeffer.
Read, F. B., Osceola Mills, Clearfield.
Read, Lewis W., Norristown, Montg'y.
Reagan, G. L., Shenandoah, Schuylkill.
Rea, Jas. C., Pittsburg, Allegheny.
Reber, W. M., Bloomsburg, Columbia.
Rebman, G. W., Wrightsville, York.
Redick, Saml. T., Allegheny, Allegheny.
Reed, A. G., Philadelphia.
Reed, J. B., West Alexander, Washing'n.
Reed, J. H., Sharon, Mercer.
Reed, Jos. A., Dixmont, Allegheny.
Reichard, C. C., Brownsville, Fayette.
Reichard, P. L., Allentown, Lehigh.
Reese, D. J., Renovo, Clinton.
Reid, J. K., Conshohocken, Montgomery.
Reid, S. P., Scranton, Lackawanna.
Reighter, W., Philadelphia (Lancaster).
Reilly, Geo. W., Harrisburg, Dauphin.
Reily, W. F., Carlisle, Cumberland.

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Reimsnyder, B. F., Hinkletown, Lancas.
Reinhardt, Wm. D., Edenberg, Knox P. O., Clarion.
Reiter, W. C., Pittsburg, Allegheny.
Rentschler, H. D., Ringtown, Schuyl.
Reutter, Geo. N., Benvenue, Dauphin (Perry).
Rex, G. A., Philadelphia.
Rex, O. P., Philadelphia.
Rex, T. A., Pittsburg, Allegheny.
Rhoads, J., Watsontown, Northumb'ld.
Rhoads, Miss A. F., Meadville, Crawford.
Rhodes, Jos., Wampum, Lawrence.
Rice, J. N., Pittston, Luzerne.
Rice, Wm., Rome, Bradford.
Rich, Thos. C., Philadelphia.
Richardson, Joseph G., Philadelphia.
Richter, Aug., Williamsport, Lycoming.
Rickards, W. M. L., Philadelphia.
Riggs, D. W., Allegheny City, Allegh'y.
Riggs, E. S., Allegheny City, Allegheny.
Riggs, W. J., Beaver, Beaver.
Riley, C. K., Pulaski, Lawrence.
Risley, S. D., Philadelphia.
Ritchey, John A., Oil City, Venango.
Ritter, F. D., Gaines, Tioga.
Roberts, A. S., Philadelphia.
Roberts, John B., Philadelphia.
Robertson, J W., Hyde Park, Scranton, Lackawanna.
Robins, E S., Covington, Tioga.
Robins, E. S., Shamokin, Northumb'ld.
Robins, J. K., Catawissa, Columbia.
Robins, O. M., Shamokin, Northumberland (Schuylkill).
Robinson, F. C., Uniontown, Fayette.
Rockwell, O. H., Monroeton, Bradford.
Roebuck, P. J., Litiz, Lancaster.
Rogers, J. J., Huntsville, Luzerne.
Rogers, Robert E., Philadelphia.
Rogers, T R., Waynesburg, Greene.
Rogers, Wm., Gibson, Susquehanna.
Roland, O., Lancaster, Lancaster.
Roland, W. T., York, York.
Roller, W. C., Hollidaysburg, Blair.
Roop, J. W., New Cumberland, Cumb'd.
Rose, David, Chester, Delaware.
Ross, James, Clarion, Clarion.
Ross, I. E., Wilkesbarre, Luzerne.
Ross, John D., Williamsburg, Blair.
Ross, J. Frank, Clarion, Clarion.
Ross, Samuel M., Altoona, Blair.
Ross, W. S., Fixbury, Clarion.
Rothrock, A., McVeytown, Mifflin.
Rothrock, Roswell, Middleburg, Snyder.
Rouse, Sam'l J., York, York.
Rupp, H., Hummelstown, Dauphin.
Rutledge, S. R., Blairsville, Indiana.

Sager, Geo. J., Muncy, Lycoming.
Sample, John, Wilkinsburg, Allegheny.
Sampsell, J. W., Penn's Creek, Snyder.
Sampson, T. W., Emlenton, Venango.
Sandt, John, Easton, Northampton.
Sandt, Samuel, Easton, Northampton.
Sangston, J. P., Masontown, Fayette.
Santee, Eugene I., Philadelphia.
Sarber, Wm., Allegheny City, Allegh'y.
Sargent, Gorham P., Radnor, Delaware (Montgomery).
Savery, Wm., Bryn Mawr, Mont.
Saylor, Jean S., Williamsport, Lycom'g.
Schaffer, Chas., Philadelphia.
Schapringer, A., Philadelphia.
Schell, H. S., Philadelphia.
Schilling, G. W., Summit City, Venango.
Schmanser, T., Allegheny, Allegheny.
Schnatterly, L. W., Freeport, Armstrong.
Schnatz, W. F., Pittsburg Allegheny.
Schoales, J. D., Philadelphia.
Schofield, E. Lane, Wiconisco, Dauphin.
Schott, Arnold, Philadelphia.
Schrack, David, Jeffersonville, Montgomery.
Schrack, John, Shannonville, Montgom'y.
Schultz, S. S., Danville, Montour.
Scott, C. H., Athens, Bradford.
Scott, F. P., Monongahela City, Washington.
Seabrook, C. C., Harrisburg, Dauphin.
Seaman, John K., Lenhartsville, Berks.
Seeley, A. H., Woodhull, Tioga.
Seem, Albert A., Bangor, Northampton.
Seem, A. K., Martin's Creek, North'n.
Seiberling, F. C., Lynnsville, Lehigh.
Seibert, J. P., Chambersburg, Franklin.
Seibert, W. H., Steelton, Dauphin.
Seiler, Carl, Philadelphia.
Seip, Amos, Easton, Northampton.
Seip, M. S,, Easton, Northampton.
Seip, W. H., Bath, Northampton.
Seiple, L. C., Centre Square, Montg'y.
Seiss, R. S., Littlestown, Adams.
Senseny, E. N., Chambersburg, Frank.
Seyfert, Theo. H., Philadelphia.
Shakespeare, E. O., Philadelphia.
Shapleigh, E. B., Philadelphia.
Sharpneck, T. H., Jefferson, Greene.
Shattuck, Geo. F., Philadelphia.
Shaw, Thos. W., Pittsburg, Allegheny.
Shaw, W. C., Pittsburg, Allegheny.
Sheaffer, A. H., Lewistown, Mifflin.
Shearer, James M., Dillsburg, York.
Shearer, Jas. Y., Sinking Spring, Berks.
Sheets, Jno. W., Selinsgrove, Snyder.
Sheibly, J. P., Landisburg, Perry.
Sheller, Adam, Mount Joy, Lancaster.
Shelly, A. F., Philadelphia.
Shepler, J. T., Dunbar, Fayette.
Sherman, A. B., Girardville, Schuylkill.
Shilleto, G. M., Allegheny City, Alleg'y.
Shindel, Jno. Y., Middleburg, Snyder.
Shirk, Levi A , Fredericksburg, Lebanon (Berks).
Shive, P. C., Plains, Luzerne.
Shoemaker, B., Brownsville, Fayette.

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Shoemaker, W. P., Edenberg, Clarion.
Short, R. N., Mechanicsburg, Cumberland.
Shrawder, John S., Ambler, Montg'y.
Sibbet, R. L., Carlisle, Cumberland.
Silliman, James E., Erie, Erie.
Simington, R. S., Danville, Montour.
Simsohn, Jos. S., Philadelphia.
Singer, J. E., Newport, Perry.
Singer, J. J., Connellsville, Fayette.
Skillern, S. R., Philadelphia.
Skilling, M. J., Philadelphia.
Sloan, J. G., Merrittstown, Fayette.
Sloan, J. G., Monongahela, Washington.
Slocum, Alfred M., Philadelphia.
Smaltz, J. Henry, Philadelphia.
Smathers, W. J., DuBois, Clearfield.
Smith, Amos H., Paradise, Lancaster.
Smith, Albert H., Philadelphia.
Smith, A. M., Beaver Springs, Sny'r.
Smith, B. B., Allegheny, Allegheny.
Smith, E. N., Susquehanna Depot, Susquehanna.
Smith, George, Garretford, Delaware.
Smith, G. W., Hollidaysburg, Blair.
Smith, H. Yale, Philadelphia.
Smith, Henry H., Philadelphia.
Smith, Jas. M., Tyrone, Blair.
Smith, J. K., Harrisburg, Dauphin.
Smith, J. R., Pine Grove, Centre.
Smith, L. A., New Milford, Susquehan.
Smith, Robert B., Tioga, Tioga.
Smith, Robt. Meade, Philadelphia.
Smith, S. S., Driftwood, Lycoming.
Smith, S. S., Jefferson, Greene.
Smith, Samuel S., Ardmore, Montg'y.
Smith, W. C. J., Pottsville, Schuylkill.
Smith, W. H., Intercourse, Lancaster.
Smith, W. L., Wilmington, Lawrence.
Snively, A. P., Hanover, York.
Snively, I. N., Waynesboro', Franklin.
Snively, Whitmer, Pittsburg, Allegheny.
Snodgrass, H. L., Buffalo Village, Washington.
Snodgrass, James H., Pittsburg, Allegheny.
Snowden, S. G., Franklin, Venango.
Snyder, Q. S., Richmond, Northampton.
Solliday, E. S.
Spackman, R. V., Luthersburg, Clearfield.
Spangler, Benj. F., York, York.
Spangler, J. R., York, York.
Spaulding, S. C., Shenandoah, Schuyl.
Speer, Alex., Pittsburg, Allegheny.
Spencer, C. A., Dallas, Luzerne.
Spratt, Geo. R., Coatesville, Chester.
Sproulls, J. N., West Finley, Washington.
Squire, R. A., Scranton, Lackawanna.
Stahley, Geo. D., Easton, Northampton.
Stayer, A. D., Roaring Springs, Blair.
Stearly, J. B, Reading, Berks.
Stebbins, Sumner, Unionville, Chester.
Steck, W. C., Glenvale, York.
Steele, F. C., New Buffalo, Perry.
Stehman, H. B., Lancaster, Lancaster.
Stein, Luther K., Philadelphia.
Steinmetz, E. G., Hokendauqua, Lehigh (Northampton).
Sterling, John, Philadelphia.
Stetler, J. G., Philadelphia.
Stevens, Wm. O., Avondale, Chester.
Stevenson, E. S., Pittsburg, Allegheny.
Stevenson, Jas. M., Pittsburg, Alleg'y.
Stevenson, Silas, New Bedford, Law'nce.
Stewart, J. L., Erie, Erie.
Stewart, R. C., Shippensburg, Cumb.
Stewart, Thos., Jr., Carlisle, Cumberl'd.
Stewart, Thos., Sr., Carlisle, Cumberl'd.
Stewart, Wm. G., Newville, Cumb.
Stewart, Wm. H., Kittanning, Armstrong.
Stewart, W. S, Philadelphia.
Stiles, George W., Conshohocken, Montgomery.
Stiles, Harry, Newport, Perry.
Stillé, Alfred, Philadelphia.
Stimpson, A. O., Thompson, Susqueh'na.
Stocker, A. E., Philadelphia.
Stone, J. F., Philadelphia.
Stoner, Wm. B., Northumberland, Northumberland.
Stout, Abram, Bethlehem, Northampton.
Stranahan, C. W., Erie, Erie.
Strawbridge, Geo., Philadelphia.
Strawbridge, J. D., Danville, Montour.
Strickler, A. H., Waynesboro', Franklin.
Strickler, A. W., Broad Ford, Fayette.
Strickler, M. B., New Bloomfield, Perry.
Stuart, Thos., Scranton, Lackawanna.
Stubbs, G. E., Philadelphia.
Stubbs, Joseph H., London Grove, Chester.
Sturgeon, Wm. H., Uniontown, Fayette.
Styer, Charles, Philadelphia.
Suesserott, J. L., Chambersburg, Franklin.
Sutton, R. S., Pittsburg, Allegheny.
Swartz, Jos., Duncannon, Perry.
Swartzlander, Frank, Doylestown, Bucks.
Swaving, J. G. C., Pottsville, Schuylkill.
Swayze, Geo. B. H., Philadelphia.
Swayze, Mary A., Pottsville, Schuylkill.
Swigart, J. R., Bannerville, Snyder.
Swing, E. V., Cains, Lancaster (Chester).
Swisher, T. J., Jerseytown, Columbia.

Taggart, D., Jr., Mahanoy Plains, Sch.
Tambaugh, L. H., Bealesville, Wash.
Taylor, E. W., Polk, Venango.
Taylor, I. N., Girard, Erie.
Taylor, J. Howard, Philadelphia.
Taylor, Thos. A., Pomeroy, Chester.
Taylor, Wm. T., Philadelphia.
Tenbroeck, A., Turbutsville, Northum'd.
Temple, J. C., Water Cure, Beaver.

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Tewksberry, A. D., Ashley, Luzerne.
Thayer, Alvin, Erie, Erie.
Thickstun, G., Wattsburgh, Erie.
Thomas, A. G., Freeport, Armstrong.
Thomas, Chas. H., Philadelphia.
Thomas, J. D., Buchanan, Allegheny.
Thomas, John G., Newtown Square, Delaware.
Thomas, O. W., Arndtsville, Adams.
Thompson, Benj., Landenberg, Chester.
Thompson, C. K., Fall Brook, Tioga.
Thompson, Geo. W., Mount Union, Huntingdon.
Thompson, J. A., Snow Shoe, Centre.
Thompson, John, Corsica, Jefferson.
Thompson, John C., Bellwood, Blair.
Thompson, J. C., Fillmore, Centre.
Thompson, L. M., Mahanoy City, Schuylkill.
Thompson, N. G , Brandywine Manor, Chester.
Thompson, Sidney, Spruce Creek, Huntingdon (Blair).
Thomson, J. A., Wrightsville, York (Lancaster).
Thomson, Wm., Philadelphia.
Throckmorton, W. S., Nineveh, Greene.
Throop, B. H., Scranton, Lackawanna.
Throop, G. S., Scranton, Lackawanna.
Tibbins, J. E., Beach Creek, Clinton.
Toboldt, A. L. A., Philadelphia.
Todd, Fred., Hautzdale, Clearfield.
Tomlinson, John, Montoursville, Lycoming.
Torbit, E. G., Driftwood, Lycoming.
Torrence, J. M., Indiana, Indiana.
Trabert, J. W., Reamstown, Lancaster.
Tracy, E. G., Troy, Bradford.
Tracy, G. P., Burlington, Bradford.
Tracy, W. C., Harborcreek, Erie.
Trautman, B., Philadelphia.
Travers, D. B., Steelton, Dauphin.
Treacy, Dennis J., Philadelphia.
Treichler, A. C., Elizabethtown, Lancaster.
Treichler, C. Galen, Honey Brook, Ches.
Trimble, S., Lima, Delaware.
Trimmer, J. W., Lisburn, Cumberland.
Trimmer, S. W., White Haven, Luzerne.
Troth, Samuel N., Philadelphia.
Troxell, E. R., Pittston, Luzerne.
Truesdale, ——, Mt. Jackson, Lawrence.
Turnbull, Chas. S., Philadelphia.
Turnbull, Laurence, Philadelphia.
Twitmire, J. H., Sharpsville, Mercer.
Tyson, A. R., Norristown, Montgom'y.
Tyson, Jas., Philadelphia.

Uhler, T. M., Belfast, Northampton.
Ullom, J. F., Rogersville, Greene.
Ulrich, Wm. B., Chester, Delaware.
Umberger, J. R., Dauphin, Dauphin.
Umstead, J. U., Evansburg, Montg'ry.
Underwood, Gideon, Pittston, Luzerne.
Unger, D. F., Mercersburg, Franklin.

Van Camp, J. E., Plainfield, Cumb'd.
Vanderslice, Edward, Philadelphia.
Vandersloot, F. W., Flemington, Clinton.
Vandyke, E. B., Philadelphia.
Van Kirk, T. R., McKeesport, Alleg'y.
Van Sickel, C. N., Wallaceville, Venango.
Van Tries, J. M., St. Thomas, Franklin.
Van Tries, Thos. C., Pennsylvania Furnace, Centre.
Van Valzah, F. H., Spring Mills, Centre.
Van Valzah, H. B., Clearfield, Clearfield.
Van Valzah, S. L., Watsontown, Northumberland.
Van Valzah, T. Howard, Lewistown, Mifflin.
Van Valzah, W. W., Philadelphia.
Vanvoorhis, J. S., Bellevernon, Fayette.
Varian, Wm., Titusville, Crawford.
Vastine, J. H., Numidia, Montour.
Vedder, W. D., Mansfield, Tioga.
Vogler, Geo. W., Philadelphia.
Voight, C. H., Allegheny, Allegheny.

Wagenseller, B. F., Selinsgrove, Snyder.
Waggoner, D. R., McKean, Erie.
Waid, A. P., Spartansburg, Crawford.
Waid, J. T., Spartansburg, Crawford.
Walker, R. L., Mansfield, Allegheny.
Walker, Thos. H., Mercersburg, Frankl.
Wallace, Ellerslie, Philadelphia.
Wallace, Wm., Pittsburg, Allegheny.
Walter, Joseph B., Centre Bridge, Bucks.
Warren, E. P.
Waters, D. C., Arnot, Tioga.
Watson, R. B., Lock Haven, Clinton.
Waymouth, W. C., Williamsport, Lyc'g.
Weaver, C. W., Shamokin, Northumberland.
Weaver, J. E., Strasburg, Lancaster.
Weaver, Jos. K., Norristown, Montgomery.
Weaver, R. T., Pottsville, Schuylkill.
Weaver, Samuel J., Weaversville, Northampton.
Weaver, W. G., Wilkesbarre, Luzerne.
Webb, W. H., Philadelphia.
Webb, W. W., Wellsboro', Tioga.
Weber, Charles, Pricetown, Berks.
Weber, E. K., Reading, Berks (Schuylkill).
Weddelle, James D., Middletown (Bigler P. O.), Adams.
Wehlan, L., Scranton, Lackawanna.
Wehner, Jacob H., Philadelphia.
Weidman, W. Murray, Reading, Berks.
Weir, A. H., Philadelphia.
Weisman, Geo. T., Bainbridge, Lancas'r.
Welch, Wm. M., Philadelphia.
Welchans, G. R., Lancaster, Lancaster.
Wells, J. Ralston, Philadelphia.

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Welsh, D. E., Latrobe, Westmoreland.
Welsh, W. S., Franklin, Venango.
Wentz, W. J., New Providence, Lancaster.
Werner, A. J., Duncannon, Perry.
Westlake, E. C., Cherry-tree, Venango.
Weston, John, Chester, Delaware.
Wevill, Richard Henry, Philadelphia.
Whann, W. L., Franklin, Venango.
Wheeler, E. S., Nicholson, Wyoming (Susquehanna).
Wheeler, H. C., Carbondale, Lackaw'a.
Whelen, Alfred, Philadelphia.
Whitcomb, H., Norristown, Montgomery.
White, J. Wm., Philadelphia.
White, T. H., Williamsburg, Blair.
Whiteside, John E., Philadelphia.
Whittier, G. M., Houtzdale, Clearfield.
Wick, A. J., New Bethlehem, Clarion.
Wiest, John, Short Line, York.
Wiggins, S. L., Blacklick, Indiana.
Wightman, S. J., Pittsburg, City Farm, Allegheny.
Wiley, Chas. C., Dixmont, Allegheny.
Wiley, S. N., Norristown, Montgomery.
Willard, De Forest, Philadelphia.
Williams, Horace, Philadelphia.
Williams, W. F., Mt. Carmel, Northumberland.
Wilmot, E. F., Great Bend, Susquehanna.
Wilson, Benj. B., Philadelphia.
Wilson, Ellwood, Philadelphia.
Wilson, H. A., Philadelphia.
Wilson, J., Pleasantville, Venango.
Wilson, J. F., Philadelphia.
Wilson, J. H., Beaver, Beaver.
Wilson, Jas. C., Philadelphia.
Wilson, W. C. Q., New Freeport, Greene.
Wiltrout, J. D., Schuylkill Haven, Schuylkill.
Winters, Jos., Lower Merion, Montgo'y.
Wirgman, Chas., Philadelphia.
Wishart, C. A., Pittsburg, Allegheny.
Wishart, H. S., Harrisonville, Fulton (Franklin).
Wishart, J. W., Pittsburg, Allegheny.
Witherspoon, W. M., Shippensburg, Cumberland.
Witman, H. O., Harrisburg, Dauphin.
Wittig, Chas. F., Philadelphia.
Wolfe, Samuel, Skippackville, Montgomery.
Wolford, W. Scott, Philadelphia.
Wood, C. B., Monongahela City, Wash.
Wood, E. A., Pittsburg, Allegheny.
Wood, H. C., Philadelphia.
Wood, John D., New Castle, Lawrence.
Woodburn, S. M., Towanda, Bradford.
Woodbury, Frank, Philadelphia.
Woods, A. A., Erie, Erie.
Woods, D. Flavel, Philadelphia.
Woods, John F., Boalsburg, Centre.
Woods, L. N., Wheatland, Mercer.
Woods, W. W., Stanton, Jefferson.
Woodruff, Henry, Logues Corner, Ches'r.
Woodward, Chas. E., West Chester, Chester.
Woolford, Dillsburg, York.
Woomer, H. F., McKees Half Falls, Snyder.

Yarrow, Thomas J., Philadelphia.
Yost, G. P., Loganville, York.
Yost, J. F., Bethesda, Lancaster.
Young, J. W., Williamsport, Lycoming.
Young, Samuel, Allentown, Lehigh.
Young, Theo. J., Titusville, Crawford.

Zeigler, G. W., Carlisle, Cumberland.
Zeigler, S. P., Carlisle, Cumberland
Ziegler, Geo. J., Philadelphia.
Ziegler, Jacob L., Mt. Joy, Lancaster.

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The attention of County Societies is respectfully directed to the following clauses of the Constitution and By-Laws of the State Society, viz.:—

Constitution	Article VII.
By-Laws	Article V. Secs. 1 and 2.
Constitution	Article V. Sec. 9.

From which it appears

First. That each County Society is liable to assessment in proportion to the membership which it reports to the State Society.

Second. That the representation of each County Society at the meetings of the State Society is strictly limited by the membership thus reported; and

Third. That no member can continue in good standing in his County Society, who declines to contribute his proportion of the annual assessment, unless the Society makes good his deficiency.

N. B.—It will be remembered that the State Society now imposes no assessment on the County Societies or individual members thereof other than that for the Transactions.

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